Participation and political representation: A critique of 'participation' in marine governance

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Declaration of originality

This thesis contains no material that has been accepted for a degree or diploma by the University or any other institution, except by way of background information and duly acknowledged in the thesis, and to the best of my knowledge and belief no material previously published or written by another person except where due acknowledgement is made in the text of the thesis, nor does the thesis contain any material that infringes copyright.

Authority of access

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Statement of ethical conduct

The research associated with this thesis abides by the international and Australian codes on human experimentation, and has been conducted in accordance with the National Statement on Ethical Conduct in Human Research (NHMRC 2007, updated 2018) and has been conducted under the approval of the University of Tasmania Human Research Ethics Committee, project reference number H0016572.

Abstract

Citizen participation has become a focus as a means for increasing democratic legitimacy across a range of policy contexts, including marine governance. At national and sub-national scales, civil and 'stakeholder' participation in marine governance has become increasingly common. Benefits from participatory processes promised in the literature include the reduction of conflict between sectors, industries and/or communities (including the so-called 'social licence to operate'); social learning and community adaptation to changing marine ecosystems, conditions and new marine industries; increased social acceptance of decisions about shared use of marine ecosystems; and increased democratic legitimacy for decision-makers. In practice, however, empirical research in marine governance is pointing to the failure of participatory processes to achieve these aims, resulting in a continuation of contested outcomes and citizen disillusionment. Further, there are limited approaches to theorisation of participation in marine governance, constraining the ability of practitioners and researchers to explain or address these failures.

In this thesis, I examined participatory norms and practices in marine governance to consider institutional limits that contribute to the problem of participatory governance failure, and to extend the theoretical underpinnings of marine governance research and practice. My research was designed as a mixed-method constructivist examination: an approach that is appropriate to address the complexity of discourses, norms and material practices. To shed new light on how we think about participation in marine governance, I adapted Hannah Fenichel Pitkin's seminal theory of democratic participation and representation. Pitkin established that 'participation' and 'representation' are intrinsically linked by three essential conditions: authorisation, dissent and exit, and accountability. Using this core element of Pitkin's theory as a 'lens of participation–representation', I conducted a detailed analysis of how participatory principles and practices are constituted in marine governance, identifying the norms and implied political theory underpinning contemporary marine governance discourse. I found that marine

governance research and practice is strongly influenced by norms from participatory democracy theory – what I refer to as the social-ecological systems (SES) paradigm. I argue that the ecosystem framing of the SES paradigm pushes participatory democracy theory into new conceptualisations of the polity – as defined by the ecosystem rather than the nation-state – and recasts political processes as social interrelations built on social capital. I also found that this reframing of political structures is largely unarticulated and incomplete, and as a result creates limitations in the institutional and material practices of marine governance. To test this conceptual framing, I turned to empirical practices to see if and how the precepts of the SES participation norm and the lens of participation–representation manifest in practice. Through two case studies I found that participatory initiatives lacked democratic legitimacy in the terms established by the conceptual frame (the lens) and that the SES discourse, norms and practices were prevalent and implicated in the institutional and legitimacy limitations.

The conceptual frame I developed in this research proved to be relevant and useful for analysing the limitations of the two case studies I examined. The quantitative basis of my analysis of marine governance discourse means that these case study findings are likely to be relevant to other instances of participatory marine governance. On this basis, I suggest the conceptual lens is sound and makes a useful contribution to the work of articulating the theoretical underpinnings of the SES paradigm. Finally, I suggest this work supports the development of a richer understanding of democratic institutional legitimacy and reflective practice in marine governance as we move through significant social, political and ecosystem changes.

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Preface

This research has been a personal, professional and academic challenge. My commitment to democratic principles and processes as the basis of human dignity has grown from lived experience as well as a philosophical commitment. My Australian ancestry comprises English free settlers who were among the forefront of colonial dispossession of the Wurundjeri people from their Country, known today as the city of Melbourne, Victoria, Australia. More immediately, I grew up in a professional, well-educated middle-class family that fell into poverty and I started my career in human rights activism and addressing homelessness and disadvantage. From these beginnings I learnt first-hand about the essential role of participation, and social and political agency in every person's identity and human dignity.

Professionally, my career took an unexpected turn into marine governance based on my community development and community engagement experience. I was fortunate to have worked with Tasmanian aquaculture industry leaders at a time when they were building a progressive approach to industry operations and industry governance. Notwithstanding this, intense public backlash and pockets of fierce community resistance to the rapid expansion of the salmon industry and grave concerns about negative ecosystem impacts remained. At this time, Tasmanian communities had also been racked by public fights over the forestry industry and public outrage and disillusionment with both our govern*ment* and industry govern*ance*. Despite an audacious participatory 'peace deal', forestry represented the failure of democratic governance in the eyes of many at the time. In this context, I came across the 'democratic deficit': the lack of legitimacy in governance process, and community concerns about the excluding effects of participatory processes. This period led me directly to this research project and the research concerns. It was time for me to stop and think through this problem of seeming participation failure.

In taking a critical perspective on participation and the social-ecological systems approach, I have at times lost hope in the reliability or meaning of democratic participation. One of the gifts this research has brought me, and which I would like to offer my readers, is a renewed sense of optimism for participatory principles, processes and practices as we confront the challenges of adapting to emerging climate conditions. If democracy remains our shared ideal, then ensuring coherence and alignment between our intentions and social-ecological institutional governance structures will always matter. My research has made this endeavour for me, and I hope for readers and my colleagues, a little more manageable, little more imaginable and a little more hopeful.

Chapter 1. Introduction - The problem of participation in marine governance

Efforts to confront the implications of a rapidly changing environment are challenging and are changing the shape of democratic governance. In this context, the development of this thesis has been concerned with two large-scale and interconnecting narratives: the spread of integrated, ecosystem-based governance for multiple-use marine ecosystems; and changing forms of democratic governance, defined as dispersed decision-making processes that draw on a range of actors (Sorenson and Torfing 2005a, 2005b, 2018).

A key point at which these narratives connect concerns citizen participation. Participation is a defining feature of a democracy, and the way in which participation is achieved is a core function of democratic structures, processes and practices. The way in which participation is achieved in the governance of shared marine resources has become a largely settled expectation and practice in democratic marine nations such as Australia and Canada. This reflects United Nations directives and agreements, science and research and contemporary governance practice (e.g. Jentoft et al 2007; Pomeroy and Douvere 2008; UN Environment 2019).

The emergence of participatory approaches to policy governance resonates strongly with discourses of 'direct democracy' that link citizen participation in decision making and governance with increased political agency and democratic legitimacy (e.g. Dryzek 2006; Pateman 1970). Despite intentions for increased democratic legitimacy, the empirical research indicates that citizen participation in marine governance is more complex than anticipated and is not delivering the expected benefits (e.g. De Santo 2016; Flannery et al 2018; Pieraccini 2015; Santos et al 2018; Treffney and Beilin 2011). This is what I call the contemporary problem of participation – that despite more direct citizen participation in governance processes, we also see less trust and more disillusionment with democratic governance.

Direct or participatory democracy theory and the ways in which democratic legitimacy can be achieved and demonstrated through institutional forms of direct democracy have been subject to critique in political theory (e.g. Alonso et al 2011; Bohman 1998; Saward 2010). From within social and ethnographic research, Cooke and Kothari (2001) and Li (2007) have done influential work critiquing participation practices, the role of agents of power and expertise such as the 'state' or 'science' and the potential to undermine rather than support the influence of communities and civil society on decision-making. These rich and critical research traditions however, have focused primarily on the 'development' context and draw minimally on the literature critiquing participatory democracy in developed nations. In marine governance research and practice, the 'participatory turn' not been fully subject to the critiques of direct democracy by political theorists (Puente-Rodriguez 2014; De Santo 2016). A notable exception is Griffin's (2013) analysis of the European Common Fisheries Policy which identified the exclusionary effects of participation practices deployed in fisheries reform. In this thesis, I have brought a critique of the assumptions and practices of direct democratic theory to bear on the aspirations and practices of participation in marine governance. I have done this to enable us to think differently about participation from the way it is currently thought about in marine governance, and to generate fresh insights that can strengthen participatory institutions and practices.

Governing coastal and marine social-ecological systems is becoming more complex and increasingly significant for human wellbeing. I use the term 'marine social-ecological systems to signify interlinked human and bio-physical systems *sensu* Berkes et al 2008, and I use the term 'marine ecosystem' to refer to an ecological subset of marine systems that encompasses the interactions and influencing loops among marine plants, animals, the benthos and water column. The United Nations estimates that three billion people globally depend on marine ecosystems (UN 2019). In 2015, United Nations members elevated the need to balance marine conservation and human uses to one of the United Nations *Sustainable Development Goals (Goal 14 Life Below Water),* pointing to the global significance of marine governance (UN 2019). Human uses of marine ecosystems span food production, coastal land-based industry and increasing urbanisation, recreation, tourism, waste

disposal and marine pollution, extractive marine industries and energy generation (Halpern et al 2008). Marine ecosystems are also facing increasing future pressures from a number of sources: the impacts of climate change on ecosystem resilience driving conservation imperatives (Doney et al 2012; Hoegh-Guldberg and Bruno 2010); the impacts of population increases on food security and marine pollution driving human adaptation imperatives (Barboza et al 2018; Pauly et al 2005; Rice et al 2011); and economic drives to develop the 'blue economy' driving access rights and multiple-use governance imperatives (Pauli 2010; Golden et al 2017; Patil et al 2016). Marine ecosystems are complex social and ecological systems and marked by multiple and sometimes seemingly conflicting uses (Berkes et al. 2008; Perry et al 2010; Walker et al 2002; UN 2019). Generating legitimate effective and democratic governance institutions and practices that can address this complexity is increasingly essential to human wellbeing.

The institutions of mature or consolidated democracies, i.e. the nation-state, are failing to keep up with the complexity of social, political, economic and environmental changes underway (Alonso et al 2011; Runciman 2018; Urbinati 2015). The failures of the nation-state are giving rise to increasingly intense demands for citizen participation that cannot be met through existing governance institutions (Urbinati 2015; Urbinati and Warren 2008; Wessels 2011). The failures are evidenced as low levels of citizen trust and citizen disillusionment in existing nation-state institutions and processes that are undermining the legitimacy of democratic nations (Urbinti 2015; Edelman 2018). These failures also reflect practical and material tensions for nation-states that have resulted from the emergence of the 'network society' (Castells 2011; Hajer and Wagenaar 2003). Castells (2011) used the term 'network society' to describe social and cultural changes associated with the spread of information and communication technologies and social, cultural and economic globalisation (Castells 2011). Subsequently, Hajer and Wagenaar (2003) identified five sociological characteristics of the network society that have significance for democratic governance:

- new 'spaces' of politics, i.e. new processes and actors other than those of the classical modernist state institutions;

- widespread experience of ‘radical uncertainty’, i.e. increased awareness of complex problems and issues with no readily identifiable solutions, and awareness of the high likelihood of unintended consequences resulting from dispersed action;

- the rising importance of difference – groups, values, languages and meanings – and the impact of difference on the ways of conducting politics (see new ‘spaces’ above);

- the growing need to negotiate trust and create identity outside the institutions and assumptions of the classical modernist state; and,

- increasing awareness of conditions of interdependence and the sense of imperative to develop common paths of problem resolution.

In this context, govern*ance* becomes a dispersed activity across a diverse set of actors, and govern*ment* by the nation-state ceases to be the central agency but rather becomes one of several essential actors (Ansell 2000; Rhodes 1996; Rhodes 2007). Citizen participation is central to this contemporary network context (Ansell 2000; Griffin 2013). The normative drive to increased citizen participation is changing how democratic legitimacy is perceived by citizens and achieved through institutional design (Larsson 2019). This contemporary network context is relevant for how the marine environment is governed currently and into the future because the marine environment is subject to multiple and sometimes conflicting uses, and this challenge of plurality and diversity is set to increase into the future (Berkes et al 2008; Perry et al 2010; Walker et al 2002). As such, in this thesis I have focused on how the democratic legitimacy of network governance institutions can be examined and strengthened in the face of increasing citizen distrust.

Network governance is conceptualised against the backdrop of the established hierarchical institutions of the nation-state (Ansell 2000; Hajer and Wagenaar 2003; Pierre and Peters 2006; Rhodes 1996, 2007). Forms of network governance are also characterised by a powerful drive towards direct citizen participation in policy processes, and proponents place a high value on the

engagement of a diversity of civil society actors as the means to greater democratic legitimacy and better policy outcomes (e.g. Fung 2006; Hoppe 2011; Sorensen and Torfing 2005a). The legitimacy of network governance in turn is tightly coupled to institutions that facilitate a direct mediation among such a diversity of actors (e.g. Ansell and Gash 2008; Sorensen and Torfing 2005a; Fung 2006; Fung and Wright 2003). However, efforts to establish direct participatory governance in practice have struggled to explain how to ensure the participation of citizens in large diverse societies (Cabannes and Lipietz 2018; Howard 2018; Larsson 2019; Weber 2018). Further, recent analysis is pointing to exclusionary effects of network governance that are yet to be fully addressed in the normative theory or governance practice (Griffin 2013; Larsson 2019; Patterson et al 2017). Such critiques make clear that contemporary challenges to the institutions and practices of the nation-state, such as climate change and citizen disillusionment, cannot be met by a return to previous forms of representative government. Legitimate participatory forms of governance, however, are still in development (e.g. Mattila 2018; Radil and Anderson 2018; Larsson 2019; Pittman and Armitage 2019).

Nation-states and their subsidiary jurisdictions (i.e. commonwealth, state and local government) continue to be primary, though constrained, active institutions in the governance of marine ecosystems (Cicin-Sain et al 2015; Campbell et al 2016; Stephenson et al 2019). The participation of stakeholders, citizens and communities in marine governance has been established in the marine literature as essential for negotiating the multiple uses of and diversity of values with respect to the marine environment (e.g. Ban et al 2017; Charles 2012; McKinley and Fletcher 2012; Reed 2008; Stephenson et al 2019). Promised benefits of participation in marine governance include conflict reduction or management; human behaviour change, and adaptation to new marine resources limits, access arrangements and new ecosystem conditions; increased compliance with new management arrangements; and increased legitimacy of marine governance decision making (e.g. Ban et al 2017; Charles 2012; Reed 2008; Soma and Vatn 2014; Young et al 2012). More recent empirical literature continues to point to the gap between the practices of participatory marine governance and the achievement of desired benefits and continues to indicate that participatory approaches to governance are leading to disillusionment in populous mature democracies (e.g. Flannery et al 2019;

Karlsson 2019; Santos et al 2018). These problems of disillusionment and lowering levels of trust in democratic processes experienced in the marine governance context reflect similar trends more broadly across mature democracies (Edelman 2018).

Calls for greater attention to critical analysis that can progress the governance of social-ecological systems are not new (e.g. Boda 2015; Bodin et al 2016; Epstein et al 2015; Leenhardt et al 2015; Patterson et al 2017). Within marine governance, however, the work of theorising participation is limited (e.g. Boda 2015; De Santo 2016; Orach and Schluter 2016; Puente-Rodriguez 2014), and the work of critically analysing the participatory assumptions and practices in marine governance continues (e.g. Boda 2015; De Santo 2016; Griffin 2013; Flannery et al 2018; Flannery et al 2019). It is in this gap that I have positioned my research as a critical analysis of conceptualisations and practices of participatory marine governance. To build on existing work and to extend the theoretical underpinnings of marine governance, I have set out to problematise the normative drivers of participatory practices and generate fresh insights into the limits of participatory governance and open new pathways for improving participatory practices.

Research questions

As a research strategy, to 'problematise' is to unsettle accepted 'truths' associated with a complex problem, to examine the political implications, and to think in new ways about the problem (Bacchi 2012). In my case, the settled, largely accepted 'truth' I aimed to problematised is that citizen participation in governance will result in greater democratic legitimacy of the process and the governance outcomes. To problematise 'participation', I set two overarching research questions and sub-questions to guide my research:

(1) What is the dominant conceptualisation of participation (the norm) within the marine governance theory and practice?

a. How does the dominant conceptualisation of participation (the norm) influence the structure and activities of participatory initiatives in the applied context (if at all)?

(2) What can political theory help explain about the limits of participatory approaches to marine governance?

a. What conceptual lens from political theory can assist in the problematisation of 'participation' in marine governance?

b. What does application of the conceptual lens explain, if anything, about the dominant conceptualisation of participation in the marine governance literature?

c. What does application of the conceptual lens explain, if anything, about the dominant conceptualisation of participation in the applied context?

I have set out the research design in detail progressively through the thesis: Chapter 2 provides the overarching design, methodology and methods, and finer details of specific methods and theoretical material are provided in Chapters 4 and 5.

Research scope and limitations

The study of democratic states, processes and institutions is a well-established and complex body of research with a vast empirical and normative literature. Notwithstanding the vast literature in democracy studies, no single agreed definition of 'democracy', typologies of democracies or democratic processes exists. To deal with this complexity, I focused on mature, populous democratic marine nations in this research for two reasons. Firstly, because the normative drive of the research concerns is the improvement of democratic process and institutions as *a priori* a public good and so focusing the scope of the research to democratic nations stands to reason. Secondly, large mature populous nations with established mature nation-state institutions face specific challenges with

participation and disillusionment that differ from those in developing democracies (e.g. Runicman 2018; Saward 2010; Urbinati 2015; Wessels 2011).

Understanding the limits and distortions within current practices of participatory marine governance is particularly important for democratic marine nations such as Canada and Australia that have also made strong commitments to advancing the United Nations commitments to participation and to the emerging research and practices of governance (Cicin-Sain et al 2015; Haward and Vince 2008). For this reason, I have focused my empirical case studies in these two large, mature democratic marine nations. Testing my conceptual research material in comparable nations enabled me to examine the normative value of the research outputs without having to account for differing stages of development of existing democratic institutions. In focusing on mature populous democratic nations, I did not specifically or closely analyse the conceptualisations of participation as they pertain to emerging democracies, so-called developing nations with resource-dependent populations, failed states, partly democratic contexts or non-democratic contexts.

From within the vast and longstanding traditions of democratic theory, I have selected Hannah Fenichel Pitkin's 1967 seminal theory of representation as the basis of my problematisation of participation. I made this choice for two reasons. Firstly, at its core, Pitkin's theory is concerned with establishing normative criteria for democratic legitimacy and the facilitation of participation in a democratic context. This is directly aligned with my research purpose. Secondly, and related, Pitkin's theory preceded the powerful drivers for increased participation and the contemporary work in participatory governance. This means that her work in 1967 was not influenced by the contemporary thinking and practices of participatory governance. For this reason, I decided that Pitkin's work was well suited to my purpose for problematising 'participation'; that is, thinking differently about participation, but using an established and well-critiqued approach to democratic legitimacy. I discuss this further in Chapter 3 (see page 51).

The empirical focus of my research is institutional design and practice rather than the analysis of legislative instruments for marine governance or the regulatory or legislative framing of participation in

marine governance. The study of institutions is well established in both political studies (e.g. Lowndes et al 2017; Pitkin 1967, Saward 2010) and resource governance (e.g. Ostrom 2011; Poteete et al 2010). Following Crawford and Ostrom (1995), I defined institutions in this research as *'*enduring regularities of human action in situations structured by rules, norms and shared strategies*'* (Crawford and Ostrom 1995, pg. 582). Institutions defined in this way are the material practices that connect people's aspirations and assumptions with actions through rules and norms. As such, I decided that institutional analysis was an appropriate basis for the 'problematisation' of the largely settled notion *and* practices of participation in marine governance (Glynos et al 2009).

Within institutional design, I have specifically focused democratic legitimacy as it is constituted through rules, norms and strategies rather than via a power analysis. Following Scharpf (1999, pg. 7), and Schmidt (2013) I make the distinction between input legitimacy, throughput legitimacy and output legitimacy. Input legitimacy is concerned with the processes and quality of the decision-making process and is associated with rules, laws and practices (Scharpf 1999; Schmidt 2013). Output legitimacy refers to the perceived efficiency of the result of the applications of these rules and laws (Lindgren and Persson 2010; Scharpf 1999; Schmidt 2013). Output legitimacy is an 'end justifies the means' argument that focuses on the performance of the system or the extent to which the outputs of the system are accepted as legitimate within the polity. Scharpf (1999) contrasted output legitimacy against input-oriented legitimacy, which takes citizen participation in the process as the measure of legitimacy. Common designs include attempts to develop institutional alignment between legislation through the representative body (such as a parliament or congress) with an aggregation of citizen preferences. More recently, Schmidt (2013) argued that governance processes also play a role in democratic legitimacy, creating what she termed 'throughput' legitimacy. Throughput legitimacy refers to the perceptions of the legitimacy associated with procedural fairness. In particular, Schmidt (2013) was concerned with the extent to which the design of institutional processes are held to support and facilitate political agency, and to which the conduct of processes reflects people's expectations for and perceptions of democratic fairness. Given my focus on institutional analysis, throughput legitimacy is the most relevant aspect for my research concerns and the scope of my analysis. I

recognise this limitation in the research as power relations are an important dimension of policy, decision-making and governance. In future studies an analysis of how power is created, distributed and exercised would be useful for further problematising participation. To ensure my research was tightly focused, however, I have maintained a focus on throughput legitimacy and institutional analysis.

Finally, in this research I have concentrated on multiple-use marine governance rather than governance of a specific resource such as fisheries, seabed mining or marine energy. Fisheries governance has an established body of empirical research but, notwithstanding the introduction of ecosystem-based and integrated approaches to fisheries research, it remains primarily single-sector focused and concentrates on the participation of resource users. The choice of multiple-use marine governance, on the other hand, reflects my assessment of the challenges ahead for the marine environment as set out earlier.

Overview of the thesis

I have structured this thesis so that it moves from a conceptual analysis of participation as a norm to an empirical focus through practical instances of participatory marine governance using two case studies and finishing with a synthesis of the conceptual and case study findings. I open the thesis in Chapter 2 by describing the design of the research as multiple-methods qualitative research. In Chapter 3, I start the process of problematising participation by reviewing how citizen participation is conceptualised in democratic theory and establish a conceptual lens from my re-reading of Pitkin's normative criteria for democratic legitimacy and participation. Chapter 4 provides a qualitative content analysis of 'participation' across a large sample of marine governance empirical literature. In that chapter, I identify the components of the norm of participation, which is later used to analyse the two case studies. Chapter 5 marks the shift from conceptual to material practices of participatory governance in the applied context. In Chapter 5, I have set out the detail of the case study methods and materials for my analysis of the applied context. In Chapter 6, I have set out the first of the case

studies, an examination of the Southwest Bay of Fundy Marine Advisory Committee (MAC), an almost decade-long experiment in established participatory integrated governance of a shared and highly productive waterway in eastern Canada. In Chapter 7, I present my second case study, the West Coast Community-Aquaculture Forum, a five-year participatory community–industry initiative that focused on governing the social benefits and shared use of a unique waterway, Macquarie Harbour in Australia's island state, Tasmania. In Chapter 8, the findings from both the content analysis and case studies are brought together and synthesised through the conceptual lens generated in Chapter 3. In Chapter 9 I close the thesis with a set of conclusions and proposed applications of my findings for future research but also for extending participatory practice in marine governance.

Chapter 2. Research methodology and design

Marine governance, institutional design and democratic legitimacy are weighty and complex social phenomena, as are the links among them. Qualitative social research is an overarching methodology that is effective and appropriate for examination, exploration and interpretation of such complex social processes and practices (Bryman 2012; Denzin and Lincoln 2018). It is particularly useful for providing explanation and draws on the particularity of social experiences to shed light on complex social phenomena (Denzin and Lincoln 2018; Mason 2002; Silverman 2016). The overarching purpose of my research was to investigate the limits of participatory marine governance in the democratic context by considering institutional design and democratic legitimacy. The research methods most appropriate to my research concerns, then, was qualitative social research.

In qualitative social research the evaluation of the research reliability and validity relies on a clearly explained research design that comprises methodology and methods (Aguinaldo 2004; Golafshani 2003; Tracy 2010; Yardley 2000). Further, following Denzin and Lincoln (2018) I take a qualitative research methodology to also include a description of the researcher's values and philosophical orientation within which the researcher designs the research purpose, objectives, questions and methods (see also Creswell, 2007; Vasilachis 2009). In this chapter I lay out my research design comprising a positionality statement and empirical methods to assist in the evaluation of the reliability and validity of my research. Using a combination of Golafshani (2003), Tracy (2010) and Yardley (2000), I have applied the following criteria to address the reliability and validity of my research:

- Impact and significance: that the research has value for the people involved and the relevant academic field;

- Coherence and rigour: that the research design is coherent, the methods are appropriate to the research questions, the conduct of the data collection and analysis methods have been

appropriate and met ethical standards, and that the findings flow logically from the data collection and analysis; and,

- Transparency: that the research structure and practice are described clearly enough that readers can take into account and assess the decisions and practices that have influenced the production of the knowledge through the research.

Methodology

In qualitative social research, the researcher is often the research tool (Xu and Storr 2012; Golafshani 2003). This means that understanding the values and orientation of the researcher and how these inform the research design is important for evaluating potential researcher bias and so also evaluating the reliability of the research (Bourke 2014; Palaganas et al 2017; Sultana 2007; Tracy 2010). To support evaluation of the research, the generation of a positionality statement has become established as a critically reflexive practice in qualitative social research (Palaganas et al 2017). A positionality statement provides an account of the researcher's way of seeing the world and links the ways of seeing the world to the research design and methods (Aguinaldo 2004; Mason 2004; Palaganas et al 2017). This is a slightly different epistemological take on researcher bias from other research traditions and is a strength of the interpretative methodology provided the researcher has made their position and methods sufficiently transparent (Tracy 2010; Yilmaz 2013). In this section I provide a researcher positionality statement comprising my ontology, epistemology and axiology, link these together into an epistemological framework for the research and then set out how these inform my research methods and the structure of the thesis.

For the qualitative researcher, there are a number of core epistemological questions that are important to identify and explain in order for the quality of the research process and the reliability of the findings to be assessed: How can reality be known? What is the relationship between the knower and what is known? What assumptions guide the process of knowing and generating findings? Can

the process of knowing be replicated by another? (Vasilachis 2009). These epistemological questions go to the issues of research coherence and reliability, and so are matters of research design. In this section I respond to these questions so that readers can assess the quality, coherence and reliability of my research study (Mays and Pope 2000; Tracy 2010). The following statements explain my position on the nature of reality, my ontological position, that is the foundation for addressing the epistemological questions and articulating my axiological positions (Law 2004; Mason 2002):

- We, i.e. people, **actively make sense** of the world within the context of and through our relationships, with others and with ideas.

- We, i.e. people, **construct and create** meaning, culture, emotion, practices and institutions in and through social relationships and these social relationships have material consequences.

- We, i.e. people, **simultaneously influence/create and are influenced by/created through** the many communicative and material actions that constitute culture, institutions, discourses and action.

- Cultural, political, economic and emotional 'facts', realities, truths and objects are articulations/instantiations of the meaning given by interacting people through communicative and material actions.

- The meaning given is also shaped by the communicative and material actions and events that have **gone before/happened in the past** and out of interpretation of those past meanings.

- Power is the **capacity to influence communicative and material activities** and is also constituted through the mass of interactions and relationships. This capacity, power, is marked significantly by, though not necessarily solely determined by, material effects, e.g. physical force or having more money.

In sociological terms, I see human experience and reality as a dynamic, co-constructing and mutually influencing interaction between structure and agency. These statements reflect what others have labelled a subjectivist and constructivist ontological paradigm (Bryman 2012; Denzin and Lincoln 2018; Silverman 2016; Vasilachis 2009). In summary, I regard 'reality' (or how we live and experience the world) as co-created and continually created through relationships and associated material activities. The implication of this position for the research process is that I regard instances of shared meaning-making as it is encapsulated in written records and verbally articulated accounts of thoughts, intentions and actions and material activities and practices, as the nature of the social 'reality' that I wish to investigate – in other words, what people say and what people do.

What can be known?

Extending from this ontological position, I suggest that what can be known is my interpretation of what people tell each other and themselves. To me, shared meaning-making can be found in written records and objects (including minutes, policy documents, media communications), in articulated descriptions and accounts of events, and in interpretations of past events. This then is the nature of the social 'reality' that I wish to investigate. Within much qualitative research, this is generally referred to as an 'interpretivist approach', which refers to the understanding that meaning is made through interpretation (Creswell 2007; Flick 2009).

What is the relationship between the knower and what is known?

As an everyday person who is also a researcher, I both contribute to and am influenced by the many communicative and material actions that constitute culture, institutions, discourses and action. This has consequences for my research practice and how I approach the research process and participants. The most significant is that I as researcher cannot be separate from the constitution of the topic, nor the generation of the data (Law 2004). Maree as the researcher is actively involved in the creation of the topic and the data. This means that I cannot seek to solve the 'problem' of participation/representation through this research, nor produce objective truth about a situation or the

experiences of those involved in the research situation. Rather, my job as researcher becomes one of explaining and creating an explanation (Creswell 2007).

Can the process of knowing be replicated by another?

I have explained that I regard the process of knowing as being necessarily generated by a person informed by their own experiences, values and perspectives. I would also argue that with sufficient transparency and description, the process of knowing can be followed, understood and replicated by another. The other may not come to the same conclusions but they can replicate and assess the soundness of the process of knowing. In research terms, this means that thorough description of the methods, the analysis, the decisions on interpreting the materials is essential for the possibility of replication by another. This position is also consistent with, and informed by, the interpretivist approach (Creswell 2007).

Table 1 on the following page summarises how these positions link together as an epistemological framework for my research and draws the links to my research questions and methods. In the following final section of this chapter, I explain how I designed the research based on the links in this table, ensuring the research process is coherent with my research paradigm.

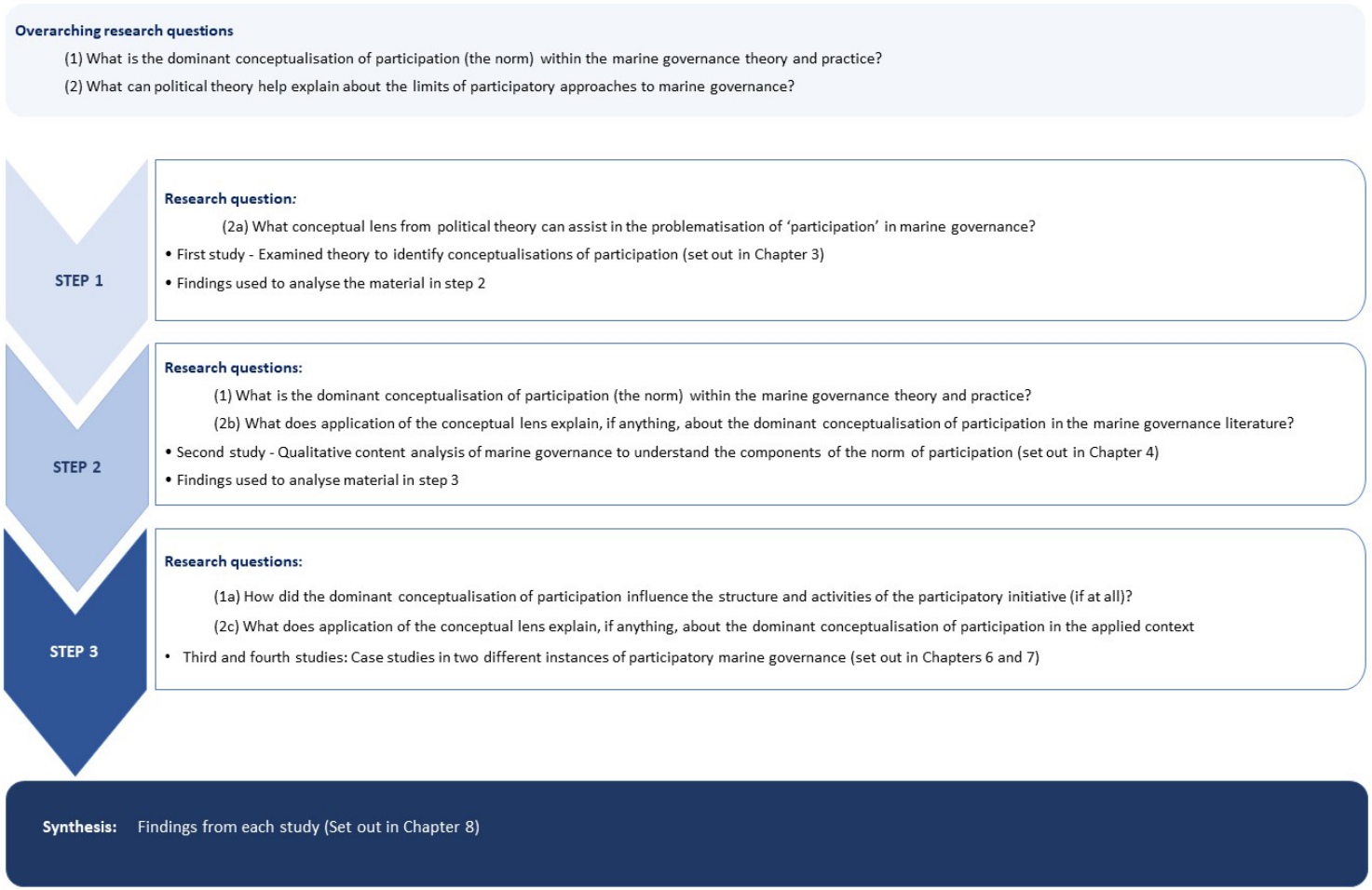
Table 1: Summary of the flow from my positionality through to the methods for this research project

Research questions	Ontology	Epistemology	Axiology	Research concerns	What I take to be data	Method
What are the limits to the theory and practice of participation in marine governance?	Subjectivist	Interpretivist	The researcher cannot be separated from the research process.	In examining instances/events of attempts at participatory marine governance, new ways of understanding an established approach might be generated.	Utterances by others, either in person or in written form interpreted by the research	Case study involving interpretation of utterances in documents and interviews
What can political theory help explain about why participatory initiatives fail?	Constructivist	Constructivist	The researcher can seek to understand, and become an actor in construction, but cannot produce objective truth.	Political theory represents a knowledge produced by many thinkers and actors concerned with how life can be constructed and understood. Applying established political theory or frameworks may assist in interpreting the experiences of people involved in attempts at participatory governance of marine social-ecological systems.	Explanations of actions and decisions by actors as represented in their own words, reported by people also involved, or through written documentation of actions, rationale and decisions	Qualitative content analysis and inductive interpretation of written material

Design of the empirical studies and methods

To address the research questions (see pg. 22) in alignment with my epistemological position, I set an overarching objective for the research to problematise notions and practices of participation to enable me to think about a largely settled concept, participation, in new ways. Following Bacchi (2012), to problematise participation I brought together an analysis of ways of thinking about participation – the conceptual – with material practices in the applied context – what people do in participatory marine governance. I did this by conducting three sequential and layered studies as shown in Figure 1 below.

Figure 1: Layered design of the research



The first problematisation step was to examine democratic theory. The research question for this first step was: *(2a) What conceptual lens from political theory can assist in the problematisation of 'participation' in marine governance?* In this study, set out in Chapter 3, I reviewed the two major traditions of democratic theory with a specific focus on how citizen participation is addressed and understood. I then generated a conceptual frame from a normative theory.

For the second step, I moved to an empirically based conceptual level. The first research question I set for this second study was *(1) What is the dominant conceptualisation of participation in the marine governance theory and practice?* This study involved parsing and analysing the components of the participation norm in marine governance by qualitative content analysis of the academic literature. Qualitative content analysis is a structured, replicable method of interpreting textual data using a systematic process of coding and is appropriate for examining complex social phenomena (Fereday and Muir-Cochrane 2006; Neuendorf 2016; Stemler 2001) and is therefore appropriate for this study. I then posed a second research question: *(2b) What does application of the conceptual lens explain, if anything, about the dominant conceptualisation of participation in the marine governance literature?* To address this question, I applied the conceptual frame from the first study to conduct a deductive analysis of the material generated through the first part of this study. The detailed methods and materials for this study are set out in Chapter 4, and specific details are also set out in Appendices 1, 2, 3 and 4.

The third step in problematising participation was designed to explore the relevance of the findings from both the first and second studies in the applied context; that is, real situations in which people have conducted participatory marine governance. I set two research questions for this third step:

> *(1a) How does the dominant conceptualisation of participation (the norm) influence the structure and activities of participatory initiatives in the applied context (if at all)?*
>
> *(2c) What does application of the conceptual lens explain, if anything, about the dominant conceptualisation of participation in the applied context?*

To address these questions, I selected two instances of efforts in participatory marine governance as explanatory case studies (Merriam 1998). The specific details of the case study design are set out in Chapter 5. The case study approach is a well-established qualitative research method for examining social phenomena from the applied context (Mills et al 2017; Yazan 2015, Yin 2017). Following Merriam (1998) and Stake (2013), I have used case study as an interpretive method for explaining each participatory governance instance with reference to the research concerns. To do this, I set the research questions as a theoretical and deductive framework (*sensu* Merriam 1998) derived from the first two research studies described above. To address the research questions, I combined inductive and deductive analyses of each initiative (Fereday and Muir-Cochrane 2006). Firstly, I generated the material through inductive analysis of the case study documentation and what people said to me through semi-structured in-person interviews. I used this material to generate a coherent and rich picture of how the initiative operated based on the documentation and people's reported experiences of the initiative. I then deductively analysed the material by applying the conceptual frames represented in the research questions.

In defining the unit of analysis, I focused on the institutional design of each participatory initiative (Merriam 1998). The study of institutional design and processes is a well-established empirical approach to examining shared political systems (Hall et al 1996; Lowndes et al 2018) and human–nature interactions (Vogler 2003). The definition of 'institution' is the subject of much discussion and the term can reflect a range of theoretical perspectives (Peters 2012). Following Crawford and Ostrom (1995), for this research I defined 'institution' as 'enduring regularities of human action in situations structured by rules, norms and shared strategies' (Crawford and Ostrom 1995). Each case is set out in a separate chapter (Chapters 6 and 7) and the details of the methods and materials can be found in Chapter 5.

The layered and mixed-method design of the research enabled me to combine the conceptual with the applied analysis, and pair an examination of the 'particular', through the case studies, with the 'general' through the empirically based qualitative content analysis. In Table 2 I have set out how the

four characteristics of social research were integrated in my research design to strengthen the reliability and relevance of the research findings.

Table 2: Integrated research design to problematise 'participation'

	Conceptual	Applied
General	Rethought concepts of political participation using political theory and produced a conceptual lens in Chapter 3 Parsed the axioms of the participation norm from marine governance literature and produced an analytical frame for the norm in Chapter 4	Conducted qualitative content analysis of participation norm from across a broad sample of marine governance literature in Chapter 4
Particular	Examined two case studies using the conceptual lens from Chapter 3 and the analytical frame from Chapter 4	Each case study is an in-depth analysis of specific instances in different places.

Limitations

Sample size and generalisability

The limited samples relevant for qualitative research can be a constraint to generalisability of the research findings (Tracy 2010). The extent to which this limitation influences the findings should be determined by research purpose; that is, is the purpose to solve a well-structured problem or is the research purpose to explain a complex situation (Golafshani 2003; Tracy 2010)? The limitation for generalisability has some relevance for my research project as participation in marine governance is a widespread practice and the challenges experienced in implementing participatory forms of marine governance are geographically widespread (as per my discussion in the Introduction above). My research purposes, however, were to identify and examine the elements of the participation norm as they operated within the cases, and then examine the theoretical elements which explain the influences of the norm. As such I did not seek to extrapolate grounded findings from the case studies to marine governance but rather understand the theoretical elements to which the cases speak. To do this I conducted three studies which explicitly presented the norm at work: an analysis of the literature through the most influencing texts; two case studies from the applied context. This research, then, was an exploration through empirical studies rather than a global characterisation of marine

governance. As such, this limitation, while important to consider when assessing the findings, does not limit the reliability or validity of the findings as explanation. In future studies of the participation norm, I suggest a greater sample of case studies would assist in extending the generalisability of the findings with respect to the limits created in institutional structures and practices by the influence of the participation norm.

Self-report through semi-structured interviews

Potential biases associated with self-report data such as I have collected through semi-structured interviews is well recognised and includes selective memory and exaggeration (Opdenakker 2006). The influence of this bias in my research is not significant because the purpose of my interviews was to generate material through which I could explore the presence or absence of the participation norm *in people's experiences*. That is, my purpose was to understand perceptions and experiences of the norm as intention and practice rather than to seek an objective 'truth' of 'what happened' for which self-report bias would be a negative factor. In contrast, for this research people's report of their experiences and memories through interview was useful for exploring how they made sense of their material practices and the assumptions they made in doing so. In other words, people's reports were appropriate material for understanding how a norm is formed and influences material practices. This means that what in other paradigms might be biases in semi-structured interview were appropriate to the research purpose (Mabry 2008).

Notwithstanding the appropriateness of semi-structured interview data for the research purpose, I triangulated the individual self-report data with analysis of the documentation of the case study initiative (Mabry 2008). I did this by using the group-approved meeting minute, the documentation, to provide an alternative account of experiences and perceptions of the initiative to balance the semi-structured interview material. This material represented at-the-time and group-agreed records of activities, intentions and decisions. Although the documentation was largely created by the same people as were interviewed, this material nevertheless provided perspectives on the initiative that differed from the interview material in two ways. Firstly, it was group-agreed rather than individual and

so reflected agreed interpretations of perspectives, intentions and concerns and why decisions were made, or actions were undertaken, as opposed to individual perspectives. Secondly, the material reflected interpretations and perspectives generated at the time of the initiative rather than a reflective memory or representation such as is produced through interview. This second source of data on the initiative expanded the material that represented each case study initiative and ensured my analysis did not solely rely on semi-structured interview data.

Bias in the case study analysis due to the deductive design

The layered deductive design set out above brings the findings from the first two studies to bear as deductive analysis frames for the case studies, enabling comparative and iterative analysis across the whole thesis (*sensu* constant-comparative approach e.g. Strauss and Corbin 1990). The strengths of this design were that firstly it enabled the problematisation of the core concept (participation) and secondly that it enabled me to systematically examine the case studies in comparable and replicable ways and to compare the data. A potential limitation of the layered design lay in also bringing a researcher perspective bias from the conceptual frames to the data (e.g. Hammersley and Gomm 1997; Stahl 2003): that is, I went to identify a norm and so I found the norm because that is what I was looking for. Similarly, I wanted to understand the institutional links between participatory and representation and so I found links between the two. I have addressed this potential limitation in three ways through my research design.

Firstly, the purpose of the research was to understand how the two phenomena (1. the link between participation and representation and 2. the norm) influenced the applied context. It was not to prove or disprove the phenomena through presence or absence, but to understand *how* (if at all) they influenced the case studies (e.g. Lin 1998). As such, rather than the potential for bias, the layered design formed the conceptual frame for the research and was described in detail for transparency (Tracy 2010) and that the method can be replicated by others for understanding *how* in other cases (e.g. Tracy 2010).

Secondly, I combined inductive analysis of the documentation and people's experiences of the case study initiatives with a transparent deductive analysis of the material using the conceptual frames. The inductive analysis provided as close as possible presentation of the initiative through the lens of people's own experiences without reference to my research concerns (participation and representation). I then transparently and overtly applied a deductive analysis to the material as set out in each chapter. I do not suggest that this removed the potential bias in me overtly bringing my research concerns to bear on the case study material, but it did ensure a high level of transparency and so enables the reader to assess the influence of my research concerns on the case study material (Tracy 2010).

Thirdly, and closely related to the second strategy, I designed the semi-structured interviews to provide a wide scope for interviewees to talk with me about any aspect of their marine-related interests and concerns, and their experiences and perspectives of the case study initiative (Qu and Dumay 2011). The interview protocol is laid out and discussed in Chapter 5 (pg. 125). In short, the interview was designed to open with a general discussion about the person, their marine interests and concerns, and then broaden out to strengths, achievements, weaknesses and challenges of the initiative. People were aware of my broad interests in participation and representation from the information and consent material I provided them prior to interview (see Appendix 6). We did not discuss these interests directly in the interview unless interviewees themselves raised them and wanted to talk about them. This strategy struck a balance between openness about the research purpose and concerns and minimal interference on my part as the interviewer, and maximum participant control over what they wanted me to understand about their marine ecosystem and their experience of the initiative or anything else they felt was relevant for me to understand.

Interpretivist analysis and replicability

As established in the opening statement of this chapter, concerns about replicability are commonly associated with the interpretivist methodology I have used. I have also established that given the epistemological location for the research, as also discussed above, replicability is less the indicator of

research quality for qualitative research than transparency and the capacity for the reader to assess the influences and the process for the generation of the findings (Tracy 2010). In this chapter, and in the methods and materials of Chapter 4 and in Chapter 5, which present the details of the methods and materials for the case studies, I have aimed for as much transparency as possible to assist the evaluation of my research quality and coherence.

At the same time, I have been motivated to introduce some degree of replicability of the deductive analysis for the research findings to be of practical use and application in other contexts. As such, the conceptual frames I have generated in Chapters 3 and 4 can be used to guide others in analysing governance practices. The frames function to bound the 'process of knowing' as the research process, but also provide a replicable hermeneutic device for governance studies.

Summary: Research quality and reliability

To conclude this chapter, in Table 3 below I have summarised how I have addressed the criteria set out in the opening statement for assessing my research quality and reliability throughout this thesis.

Table 3: References for assessing research quality and reliability

Criteria	Evidence	Reference
Impact and significance The research has value both for the people involved and within a relevant academic field.	Problem context	Introduction pg. 17
	Research purpose	Introduction pg. 17
	Research questions	Introduction pg. 22
	Case study engagement	Chapter 4 pg. 117

	Interviewee recruitment	Chapter 4 pg.122
	Concluding statements	Conclusion pg. 174, 208, 241,
Coherence and rigour The research design is coherent, the methods are appropriate to the research questions, the conduct of the data collection and analysis methods have been appropriate and met ethical standards, and the findings flow logically from the data collection and analysis.	Research purpose	Introduction pg. 17
	Research questions	Introduction pg. 22
	Research design	Chapter 2
	Methods and materials	Chapter 4 pg.75
	Case study methods	Chapter 5
	Synthesis of findings	Chapter 8
Transparency The research structure and practice are described clearly enough that readers can take into account and assess the decisions and practices that have influenced the production of the knowledge through the research.	Research design	Chapter 2
	Methods and materials	Chapter 4 and Appendices 1, 2, 3, 4
	Methods and materials	Chapter 5

Chapter 3.
Thinking about participation

Citizen disillusionment with participatory approaches to marine governance is what I have described as a contemporary problem of political participation (see Introduction, pg. 17). Concern about the legitimacy or trustworthiness of participatory approaches is a puzzle, given that the promise of greater participation is that of increased political agency and influence on the policy issues at hand (e.g. Reed 2008). In this thesis, my attention is on how people involved in participatory marine governance initiatives deal with the citizen participation as the means to political agency. The research questions used to guide this study were: *(2) What can political theory help explain about the limits of participatory approaches to marine governance? and (2a) What conceptual lens from political theory can assist in the problematisation of 'participation' in marine governance?* To address these questions, I examine the main theories of democratic participation and generate a lens for examining the contemporary problem of political participation.

I propose that political participation and political representation are inextricably linked as a relationship that defines political agency and which is conducted through institutional rules and practices. The major traditions of democratic theory that underpin governance theory and practice have treated representation and participation differently: placing different values on one or the other. In particular, and most relevant for this research, is that in participatory democracy theories direct participation is privileged, and the function of political representation is largely overlooked. Failure to fully acknowledge the function of representative mechanisms in participatory theory and practice undermines the capacity of participatory practices to deliver political agency for citizens and so leads to a lack of democratic legitimacy. I contend that understanding this disconnect will help identify, and perhaps even overcome, citizen disillusionment with participatory processes. Although there are many conceptual and practical implications of this assertion, I examine the implications for the design of participatory governance institutions.

To these ends, in this chapter I introduce three 'conditions' for analysing how the political agency of citizens is constituted through institutional processes: authorisation, dissent and exit, and accountability. I have revisited Hannah Fenichel Pitkin's 1967 seminal political representation theory, *The Concept of Representation*, to examine these conditions and how they function to safeguard citizens' participation in their polity[1]. I propose that the three conditions can serve the participatory turn in marine governance by introducing overt consideration of the connection between political participation and political representation. I propose that the three conditions work together as a conceptual lens that can be used to understand how the connection is constituted through institutional rules and practices. This understanding in turn provides useful insights into how the legitimacy of participatory processes is constructed through institutional rules and practices. Moreover, using the conditions together as a lens in this way will enable policy makers, industry actors and civil society actors to better assess of the limits participatory processes and introduce fruitful ways to think about institutional responses for extending participation in marine governance.

Legitimacy is a complex topic with a long genealogy and is served by a broad literature. I do not presume to address this wide field, rather, as discussed in the Introduction (page 26), I am concerned here with Schmidt's concept of throughput legitimacy that connects theory with practice via institutional design and people's experiences of institutional processes and practices. Throughput legitimacy is directly relevant to my research concerns because my purpose in this thesis is to examine how participation is constituted through institutional norms and practices.

Political agency is a central concept at the heart of democratisation studies and in particular democratic legitimacy (Warren 2017). Following Marchetti (2013), I define political agency in minimalist terms as the opportunity for and capability of each citizen to experience their political right as a power to participate in the decision-making of a polity. This definition allows analysis of

[1] The term 'polity' is used to describe an organised community when considered as a political entity, regardless of the structure, values or orientation – Cambridge English Dictionary

institutional forms of contemporary networked contexts in which political agency takes effect. Political agency is participation in the polity and is the spread of power across the polity; that is, to each citizen. This means the 'promise' of participation to citizens is that of political agency and the experience of their power (e.g. Bishop and Davis 2002; Head 2007; Reed 2008). Participation in these terms is the defining principle of 'democracy' and is what distinguishes democracy from other political arrangements (Warren 2017). These are not only conceptual or theoretical concerns: at stake are the power to control resources and the legitimacy of decision-making. This means that a central design challenge in democracies and for political theorists is how to facilitate citizen participation (e.g. Rehfeld 2005). The questions of who, how and when citizens should and can be involved, however, are not only institutional or procedural questions of participation but are also questions of political representation (Bishop and Davis 2002; Schweber 2016). When thinking about the practice of participation in the democratic context, it is also necessary to think conceptually about participation, and that means drawing on political theory. Political representation theory is concerned with who, how and when citizens can and should participate. This means that it is likely to hold promise for explaining institutional factors impacting on the institutional legitimacy of efforts at facilitating participation marine governance.

Citizen participation in the polity is facilitated through forms of political representation (Schweber 2016). The processes of political representation are what links the articulation and creation of citizen perspectives, values and interests with the power to allocate resources (Pitkin 1967; Brito Vieira and Runciman 2013; Saward 2010). Political representation processes are also necessarily institutional processes, systemised relationships, rules and behaviours (Brito Vieira and Runciman 2013; Ostrom 2009; Pitkin 1967; Rehfeld 2005). This is the principle of political structure and institutional design. A significant body of political representation theory has been developed from this principle to examine and explain how political representation facilitates political participation. Major theorists in democracy studies have all been concerned with political representation and citizen participation: Hobbes (e.g. Runicman 2009; Pitkin 1067) and Edmund Burke (e.g. Eulau et al 1959; Pitkin 1967) for example, and more recently Mansbridge (2003; 2011; 2018), Rehfeld (2017), Warren (2018), Urbinati (2017) and

Runciman (2007 see also Brito Vieira and Runciman 2013). The central challenge of political representation remains how to convert the plurality and diversity across large, populous polities into the practical exercise of power, while maintaining legitimate political participation of each citizen (Brito Vieira and Runciman 2013; Disch 2012; Pitkin 1967; Saward 2010; Schweber 2016). Political representation theory, then, is fundamental to analysing legitimacy as it is constituted through governance practices in complex societies. In this chapter I proceed as follows.

Firstly, I examine Pitkin's seminal 1967 theory of political representation (*The Concept of Representation*). Pitkin's theory sets out the inextricable link between political representation and political participation, the connection that democracy theory and practice seeks to institutionalise in populous, plural societies[2]. Secondly, the two major traditions of political representation are examined: representative democracy, and its counter, participatory democracy. I acknowledge that recent political theorists (e.g. see Saward 2010; Brito Vieira 2017a) have sought to move beyond this dichotomy and offer the observation that this work remains primarily within in the participatory-deliberative framework (Brito Vieira 2017a). For this thesis I have taken the strength of these traditions and the arguments between 'representation' and 'participation' to be salient for understanding norms in the applied context. I demonstrate that neither tradition adequately addresses the connection between participation and representation. I do not offer an exhaustive review of each theory, as this would not be directly relevant to the study purpose. Rather, I examine each through the lens of Pitkin's connection between participation and representation. In both cases, I examine the conceptual and practical resolutions to facilitating participation in the polity. I establish that in neither case is the link between participation and representation adequately addressed; instead, either participation or representation is privileged. This means that neither tradition assists in addressing the

[2] I do not address the vast and complex body of culture theory and philosophy dealing with representation, for example in the manner of Bruno Latour, in order to maintain a productive scope to this research.

contemporary challenge of political representation and participation in the network society, or, in turn, for social-ecological systems.

Thirdly, I return to Pitkin and examine the core concepts she established for analysing participation and representation as core to understanding democratic legitimacy. I chose Piktin's text as it remains central to developments within contemporary political representation theory (Brito Vieira 2017b). Key political representation theorists argue that remains relevant to contemporary theorisation and empirical studies as her account retains both analytic and critical resources for addressing contemporary problems of political representation (Brito Vieira 2017a; 2017b; Disch 2011). More specifically for this study, Pitkin's principles with respect to the relationship between participation and representation were established prior to the development of the 'participatory turn' of the 1970s and a second iteration of this, the 'deliberative turn' of the 1980s (see Dowding et al 2004). So, for example, Pitkin (1967) carefully analyses 'representation' and accepts that representation is not necessarily democratic and in doing so, I suggest her account sets up ways of thinking about how democratic legitimacy might be evaluated free from a normative drive to 'prove' deliberative or participatory modes or forms of political agency. Furthermore, the link Pitkin made with the function of institutions as integral to the representative process (e.g. see 1967, pp. 238-240) provided a stable foundation for my empirical scope on institutional forms of participation in governance processes.

Subsequent to Pitkin approaches to theorising participation and representation remain normatively within the deliberative-participatory frame (Brito Vieira 2017a). In her system's approach for example, Mansbridge (e.g. 2003; 2011) focuses on reconciling the theory of deliberative democracy, pluralism and political representation. Similarly, Dryzek's (e.g. Dryzek and Niemeyer 2010) notion of discursive representation is largely normatively aligned with establishing the bona fide of his conceptualisation of deliberative democracy. This means that, unlike Pitkin's account, these approaches did not provide adequate critical resources for problematising concepts related to participation and political agency as per the purpose of my study. The constructivist account of representation, such as that argued by Disch (e.g. 2011) and Saward (e.g. 2010; 2014), provides a possible alternative account of

representation for this study. As will be seen later in this chapter, I do draw on Saward's account in partnership with Pitkin's principles, to generate the conceptual lens at the core of this thesis.

There are a number of possible limitations to using key principles from Pitkin as the basis for this research. Firstly, Pitkin has been criticised for failing to incorporate the constitutive or performative elements of representation into her account of specifically political representation (Brito Vieira 2017b). Later theorists such as Latour (e.g. 2005) and Baudrillard (2004) and Ankersmit (2002) drew on the cultural and aesthetic dimensions of representation to consider alternative ontologies of power and representation from Pitkin's. Such theories drew out the political nature of cultural, aesthetic and performative representation which, I suggest, were not accessible to the historical moment in which Pitkin was writing. Secondly, and closely related, Pitkin's did not account for power in contemporary institutional (e.g. see Dowding 2006) post-Marxist (see Gill and Law 1989 or Haugaard 2006) post-structuralist terms (e.g. see Lynch 2014). I acknowledge these as limitations to the approach I have taken. Notwithstanding these limitations, I suggest that returning to Pitkin in this way provided analytical resources to reconceptualise participation and representation that has relevance for the network context, that is, as a way of explicating and examining the conditions for democratic legitimacy across a range of governance forms but in a way that avoids the risk of normative bias from the alternative accounts identified above. In summary, I have used Pitkin's principles as an empirical heuristic to 'problematise' participation.

Finally, to close the chapter, I explain how the emerging constructivist approach to political representation extends how we think of political agency in the contemporary networked context, and outside the formal electoral institutional frame of existing theory and practice.

Participation and representation: inextricably linked

In her 1967 text *The Concept of Representation* Pitkin established that representation is a necessary and unavoidable set of social and institutional processes for facilitating political participation. This work has become a seminal theory of political representation for the contemporary era (Brito Vieira

and Runciman 2013; Brito Vieira 2017a). In this text, Pitkin grappled with the paradoxical characteristics of representation and systematically examined the elements of what representation 'is', how it operates. She also theorised an intrinsic connection between political participation and political representation as the basis of democratic process (e.g. Pitkin 1967, pg. 9, 209) and the ubiquitous characteristic of representation as the basis of a polity (see also e.g. Saward 2010; Urbinati 2006; Urbinati and Warren 2008; Young 2004). The paradox of presence and absence is what explains the connection between participation and representation which she described as follows: (1967, pg. 153):

> *Being represented means being made present in some sense, while not really being present literally or fully in fact.*

In examining this link Pitkin took a critical view of the established theories of political representation with respect to democratic legitimacy. While not addressing democratic legitimacy directly in contemporary terms, Pitkin focused on "true representation" and "proper relations" as defining legitimacy (e.g. 1967, pp. 8, 12,60, 112) and established that this is always at stake because of the exchange of rights at the heart of the intrinsic link between the two (e.g. 1967, pp. 2, 9-10, 139-142, 209, 240). Furthermore, she established that political representation is not only a conceptual concern but also inescapably an institutional concern (e.g. Pitkin 1967, pg. 240 see also Saward 2010, pg.164). Contemporary theorists, including Pitkin herself, have maintained a dialogue with her seminal theory, in particular focusing in greater detail on explaining how specifically political representation works and what this means for institutional design and operations (Mansbridge 2011; Pitkin 2004; Rehfeld 2011; Schweber 2016; Saward 2010). Pitkin's foundational thesis was first published in 1967 and prior to the 'participatory turn' of the 1970s (Saurugger 2010; Dowding et al 2004). This means that Pitkin's thesis was not influenced by contemporary assumptions and practices of participation in governance. For this reason, I decided to use Pitkin's theory as a foundation for problematising and rethinking current conceptualisations of participation.

The tight paradoxical bond between participation and representation is axiomatic for thinking about the legitimacy of democratic institutions: representing is the process of making virtually present someone, or a group, who (that) is at the same time actually absent or non-existent until the moment of representation for the purpose of facilitating participation (Alonso et al 2011; Brito Vieira and Runciman 2013, Pitkin 1967; Saward 2010). In the act of representing, a representative simultaneously creates and 'becomes' the represented person or group – they are required to speak, think and act as; if they are in fact the represented person or group – while at the same time clearly not actually being the represented person or group. Paradoxically, the representative is engaged because they are *not* the represented person or group because they are required to draw on their own capabilities to extend the capability of the person or group being represented (e.g. Pitkin, pg. 135-139; Brito Vieira and Runciman 2013, pg. 52). These capabilities vary and might include for example expertise, experience, judgement, communicative skills or simply available time. It is through the act of representing, providing the capability, that the participation of the represented person or group is enabled (Brito Vieira and Runciman 2013; Pitkin 1967; Saward 2013). The purpose of this provision of additional capability is to facilitate the participation of the 'represented' in a significant arena for which they are, presumably, otherwise unable to participate. The forms, structures and institutional arrangements that facilitate representation in the political arena must account for this complex link between representing and participating if they are to be regarded as legitimate (e.g. Pitkin 1967; Saward 2010; Brito Vieira and Runciman 2013).

The paradox of representing and participating is also a relationship of power. Power is created, performed and transferred between the 'represented' and the 'representative' through the absence/presence paradox (Pitkin 1967; Baudrillard 2004; Saward 2010). Baudrillard, in *Simulacra and Simulations* (2004), argued that the paradox gives rise to a dangerous pretence – that the representative is somehow actually equivalent to the 'represented'. He further argued that this fiction has the potential to also excuse a range of additional pretences and so negates any possibility of the 'reality' or a truth of 'represented' (2004, pg. 387). In other words, inherent in the paradox is the risk that the person or group to be represented simply disappears once the representative commences

representing (see also Saward, 2010, pg. 152). Baudrillard's insight alerts us to this as a moral hazard inherent in the representative relationship. It is a moral hazard because without appropriate and agreed safeguards, there is little or no assurance that the representative will use the others' power and agency in the others' best interests rather than in the representative's own interests (e.g. Gailmard 2014). In the specifically political sense, the power at stake is the individual's political agency; that is, the democratic right (and responsibility) of each person to participate in the governance of the polity in which they live. Such power is inalienable and indeed partly constitutive of an individual's status as a human, as expressed in the United Nations Declaration of Human Rights[3]. The represented takes a risk on the representative relationship and 'lends' or transfers an element of their inalienable right and power to the representative in order to participate in the agreed arena. In doing so, the represented becomes vulnerable to the representative exercising that power inappropriately, corruptly or coercively, e.g. in their own rather than the represented party's interests.

In seeking to address how power can be exercised responsibly, Pitkin conceptualised the representative relationship as either 'delegate' or 'trustee' (Alonso et al 2011; Brito Vieira and Runciman 2013, Pitkin 1967, Saward 2010). In the delegate form, the relationship is primarily transactional and the representative steps in directly for the person or group being represented. The terms and purpose are made clear and the relationship between the two is tightly controlled, often through a contract. The lawyer acting on the client's instructions, for example, is acting in the delegate mode. In contrast, the 'trustee' representative is allocated a degree of independence from the initial instructions, preferences or interests of the person or group. The independence within the trustee mode also frees the representative from the direct and specific accountability for the initial terms of the relationship, in contrast to the delegate mode. Later scholars developed a typology of 'modes' available to the representative (see Brito Vieira and Runciman 2013; Saward 2013) but I suggest that

[3] Preamble, opening statement and Article 21, http://www.un.org/en/universal-declaration-human-rights/

these are mostly nuances because they do not proffer distinctly different modes of power relationships but rather detail elements of these primary two functions (see Saward 2010, pg. 99).

The primary difference between the trustee and delegate is the degree of independence from the initial instructions, wishes or interests of those to be represented. It works like this. Firstly, both those-to-be-represented and the trustee accept the independence inherent in the paradox of the representative relationship. This acceptance then enables a transaction of power between those-to-be-represented and the trustee-representative; the transaction then enables the political agency of those-to-be-represented by proxy through the trustee. Pitkin argued that the trustee-representative cannot always know how those-to-be-represented would have acted, and so the trustee must necessarily interpret on behalf of the represented (1967, pg.127-128). The trustee should, however, proceed with the intention of acting as if they were those-to-be-represented, and place their interests above over their own personal interests (e.g. Pitkin 1967, pg. 209). Pitkin argued that the reason that those-to-be-represented might choose to transfer their agency and power is to access some kind of capability they may not have but could be reasonably expected have (e.g. Pitkin 1967, pg.140; Brito Vieira and Runciman 2013, pg. 53). The trustee might, for instance, have access to information, expertise, resources or perspectives that will inform how they assess the best interests of the represented. This is not at all a simple relationship. It follows then, that in a democratic context, the agency of those-to-be-represented must be safeguarded because the trustee has the potential to misuse the other's power or *not* act in the best interest of those-to-be-represented.

Representing the best interests of groups is even more complex and yet is the core function of political representation in a large-scale populous state. Political representation is a matter of the participation of groups in the policy and political processes of 'who gets what, when, and how' (Lasswell 1936). Groups are complex as they comprise continual and always uncertain processes of group formation of reformation of members and identities. Formalised groups, and at times non-formalised groups, may articulate a group identity, group interest or preference, and even seek to act as a unified body on this basis (Brito Vieira and Runciman 2013; Pitkin 1967; Saward 2010). In a democratic context, however, it is not always the case that the group identity is an exact reflection of

the values, preferences and interests of each member (Young 2010; Disch 2012; Saward 2010). Brito Vieira and Runciman (2013) summarise the challenges groups present for political representation as follows:

- how to aggregate a potentially endless multiplicity of perspectives, views, feelings, interests and concerns of a group but also of the individuals that comprise the group into a coherent 'program';
- understanding when and how such a program shifts and changes; and
- managing the partial representation and risks of marginalisation that can and do result from slippage between the group and individual identities.

How the political processes, forms and institutional arrangements are structured to deal with this complexity, i.e. the institutional design, is essential for ensuring democratic legitimacy.

Representation, Saward (2010, pg. 152) argues, is not a tangible state or status of legitimacy won and subsequently maintained by a given representative and bestowed by a given, pre-existing political body – those-to-be-represented. Rather, political representation is a multi-directional process of noticing, articulating and testing concerns, developing a narrative of concerns into a policy position, and making claims and contesting others' claims to represent those concerns or interests (Saward 2010). Saward (2010, pg. 46) describes representation as enacted through dynamic relationships among three actors: the 'represented', the 'representative' and the 'audience'. The representative is the actor (individual or group) seeking to exercise power on behalf of interest, value or preference. The represented is the actor (individual or group) identifying with an interest, value or preference articulated by the representative. The audience are those actors that witness a claim to representation and assess the plausibility, legitimacy and authenticity of the claim (e.g. Saward 2010, pg. 151. The audience is also a multi-faceted cohort for Saward because it includes a diversity of people potentially to be represented (e.g. 2010, pg.145). Understanding representation and participation as a co-creative, relational process is useful for making sense of the 'problems' of groups (as discussed

above). It explains the dynamics of individuals deciding, prioritising and challenging group allegiances and political preferences. In drawing attention to the relationship dynamics of Saward's performative approach to political representation has drawn greater attention to the dynamics of the relationship of representation and participation that help make sense of the problem of groups, legitimacy, political representation and participation (e.g. 2010, pg. 151-160).

Understanding how throughput legitimacy can be structured and demonstrated becomes an institutional problem of organising this relational complexity and intrinsic link between participation and representation. With this in mind, in the following section I examine how the two major traditions of democracy theory have addressed throughput legitimacy and the participation–representation connection to consider the relevance for institutional legitimacy in the contemporary network context.

Representative democracy theory: uneasy resolutions for participation

Political representation theory has a long and close relationship with the development of the institutions, relationships and narratives of the representative democratic nation-state (Brito Vieira and Runciman 2013). Representative democracy theory and practice have remained the dominant approaches to delivering citizen participation via representation institutions and the trustee mode discussed above. So dominant in fact, that the very notion of democratic agency has become identified with the institutions of representative democratic nation-states, such as elections, parliaments or congress and the bureaucracy (Brito Vieira and Runciman 2013). Political representation through the institutions of the nation-state via versions of the trustee mode has become the primary means of addressing the problem of the participation of large numbers of people with a range of views, values and interests. It is also the primary means for claiming democratic legitimacy. Much of the scholarship has focused on the relationships between the citizen as a voter, the representatives and the institutional rules that govern the representative (e.g. Bohman 1998; Przeworski, Stokes and Manin 1999; Runciman 2007; Mansbridge 201). This deep-seated alignment

between the notion of political agency and the representative nation-state is important. This is because the still-powerful entrenched electoral forms of representation that characterise contemporary democracies are the backdrop against which participatory governance concepts and practices have developed (e.g. Ansell 2000; Bishop and Davis 2002; Dryzek 2006).

In populous democratic societies, the citizen experiences political agency via the representative relationship with formally elected leaders (Brito Vieira and Runciman 2013; Pitkin 1967. The electoral process is not direct: it is mediated through political party processes and parliamentary processes. The task of the representative comprises a number of steps: to create and express the preferences and interests of citizens who vote for them; to synthesise the multiple and plural preferences and interests of the citizens that comprise the constituency that voted for them; to further aggregate these across constituencies through political party processes for form a policy platform; and then to govern over and above even the political platform through parliamentary processes in the service of the greater good or the 'public interest' (Alonso et al 2011; Brito Vieira and Runciman 2013; Hall et al 2013; Urbinati 2006; Pitkin 1967). Nor is the process even this straightforward, as interpretations by bureaucrats, contributions by scientists, donations to political parties by specific interest groups, lobbying by representatives of organised interests and sometime adjudication through the courts all further mediate the initial relationship between citizen and representative (e.g. Bishop and Davis 2002; Sabatier and Weible 2007; Weible 2006; Hoppe 2011). These are processes of negotiation and deal-making through which representatives convert the many preferences and interests, presented by many different representatives, into manageable and actionable platforms for protecting the political community and determining who gets what, when, how and why (Alonso et al 2011; Pitkin 1967).

The representative system works through a long and complex chain of interpretations from citizen to representative. Citizen perceptions of performance, or output legitimacy, ride on the extent to which the allocation of resources state's allocation of public resources reflects the overall majority of the diversity of aggregated preferences and symbolised by the seats in the parliament. A conflictual form of politics occurs at each link of this long chain of the representative-participant relationship. The contest of ideas through party policy platforms; the jostling of interests and rights; electoral

competition for seats; trades in influence: all are characteristic of the representative form of politics. The foundation of this chain, however, is the contract between the citizen and their representative for the representative to aggregate and exercise the power and right of the citizen to participate in the polity. It is the trustee mode of representation, discussed above, that justifies the long distance between the citizen and the representative as democratically legitimate. It is therefore also the trustee representative mechanism that makes it possible to convert individual and group political participation into political agency in a populous and diverse polity. The strength of the representative system, the long chain, is that for the citizen the checks and balances are clear: the ballot box and the 'court of public opinion' through which citizens provide guides for their representatives (Brito-Vieira and Runciman 2013). As I detail later in this chapter, the ballot box is a means of authorisation and accountability by which mandates to undertake implement platforms are held to be legitimated. Ultimately citizens are assured of the chance to express their judgement on the representative relationship through the ballot box. It is a process of authorisation and accountability that is understood, predictable and directly influences the contract with the trustee representative.

The distance between the citizen and the trustee representative created by the long chain of representative political processes results in a legitimacy gap, similar to what is often termed the 'democratic deficit'[4] (Vesnic-Alujevic and Nacarino 2012; Warren 2009). Debate continues about the degree of independence that is justifiably exercised by the representative through the long chain of representations and how to evaluate the gap between voter preferences and law-making (Mansbridge 2011; Saward 2010; Warren 2009). This legitimacy gap calls into question the degree to which the trustee mode of representation can and does facilitate citizen participation. The legitimacy gap also points to the significance of throughput legitimacy: that is the role of fair and just process in facilitating citizen participation in the polity. While the trustee mode makes possible representative democracy,

[4] The term 'democratic deficit' was coined in 1977 to refer to the widening gap between European citizens and the institutions of the European Union (Vesnic-Alujevic and Nacarino 2012) and has become a catch-cry for explaining citizen disaffection with the established forms of representation.

analysis of the legitimacy gap reveals three problems with the representative democratic form that point to a failure to deliver democratic participation through its representative mechanisms: authoritarian fiction, partial representation and exclusion and elitism.

An authoritarian fiction lies at the heart of representative institutions that is taken to an extreme by the long chain of representation. Pitkin's thinking suggested this fiction invalidates the claims of delivering political agency and participation through representative mechanisms without strong normative criteria for democratic institutions in place (e.g. 1967, pg. 219). In representative democracy, the state and the elected so-called representatives in principles can exert an absolute control of definition of the polity and of membership of the polity (e.g. Pitkin 1967, pp. 84 - 88). And that this is the case even if the citizens wish for different forms of participation or political structure. This is the potentially coercive or authoritarian fiction at the heart of the representative nation-state. Secondly, and implicit in the first, a fundamental conflict of interest exists in which representatives adjudicate on legitimacy of their positions through the instruments of the nation-state. The representatives use the instruments of the nation-state to construct the legitimacy of the nation-state and the representative relationship. The coercive fiction means that proponents of the representative nation-state struggle to sustain the claim of facilitating political participation of the citizenry, because the citizenry is not free to determine the terms of their own representation (e.g. Pitkin 1967, pp. 84 - 88). Hobbes' solution to the fiction was the 'social contract' that underwrites the legitimacy of the nation-state (Hampton 1988). As indicated in my introduction, however, increasing disaffection with the functions of the representative nation-state suggests that citizens are attempting to renegotiate the terms of such a social contract[5] and that they are demanding alternative forms of input and throughput legitimacy (e.g. Wagenaar and Hajek 2003; Urbinati 2017 and Warren 2018).

[5] I suggest that analysis of discourses of 'social licence' across democracies may also provide insights into a possible 'renegotiation' of the social contract fiction of current democratic forms, that is also forcing change in the existing bureaucratic structure of the nation-state, and key components including the role of science in policy processes – a further research direction.

The fiction of representation is taken to its extreme within the long chain of representation and representative politics in an attempt to deal with the complexity of groups and political agency. Rehfeld (2011) drew attention to the problem of partial representation of groups in this context. Specifically, Rehfeld voiced concerns with the ways in which citizens and groups are forced to prioritise a particular value, interest or preference over others they may hold through the electoral act of casting a single vote (Rehfeld 2011). Similarly, Young drew attention to the processes of exclusion along this chain and the lack of accountability for why particular exclusions are made by representatives (Young 2000; 2004). Yet citizens hold a range of values and preferences, and even these may change as new information becomes available. Further, once the vote is cast – an act of both authorisation and accountability (Mansbridge 2011) – even this partial representation is distorted through the long chain. Under these circumstances, the agency of each citizen is significantly reduced, in some cases excluded, and then overtaken and subsumed by the agency of the representative and the representative institutional processes. The electoral process does not give the citizen opportunity to direct participation–representation agreement nor specify how far they are prepared for it to be stretched along the long representative chain and when the stretch becomes a 'murderous capacity' (Baudrillard 2004). The growing disaffection with existing representative forms discussed in my introduction indicates that in the contemporary context political participation facilitated through these established representative forms and the trustee mode is no longer legitimate.

The tension between participation and representation, compounded by long chain of representations leads to political elites at one end and citizens at the other. By necessity, in converting the agency of many citizens into manageable actionable structures and processes, power is pooled into the hands of the few trustee representatives that govern on behalf of the citizenry. This pooling of power creates political elites. The unifying imperatives of mediating bodies such as political parties, unions, and lobby and advocacy groups produces cohorts of representative elites along the chain from citizen to political decision-maker. This happens as a result of the active aggregation of interests, values and preferences by mediating bodies required to prosecute the representative politics between and at the

time of elections. The purpose of all this representative aggregating, simplifying and mediating is to convert a plurality into a governable unity. The argument that the elitism of a professional 'political class' is a practical function required for a populous nation-state sits, then, in tension with the fundamental democratic principle of political agency for each citizen. This is not a new argument: it can be seen, for example, in Dahl's notion of polyarchy (1978). I contend, nevertheless, that the long chain of representation between the political elite and the citizen largely severs the citizen's agency and once again calls into question the extent to which the representative mechanisms can facilitate democratically legitimate political participation in all contexts.

In this section, I have examined the major tradition of democracy theory and practice and presented an argument that the representative mechanism developed to facilitate the citizen's participation is marked by an inherent risk and legitimacy gap. The legitimacy gap of the representative nation-state form of democracy is both conceptual and empirical. The essential connection between participation and representation, as understood by Pitkin, has been overlooked in the efforts to address large-scale participation, and has resulted in anti-democratic structures and processes. Pitkin argued that these anti-democratic tensions – conceptual and empirical – mean that the nation-state's representative institutions remain 'sophisticated but uneasy institutional resolutions' to the challenge of facilitating political participation through representative mechanisms (e.g. 1967, pg. 2019). Political participation is implicit and stretched thinly along the long chain of representation.

Participatory democracy: technical solutions using representation

Participatory democracy theory has developed in response to the legitimacy gap in representative democracy theory and practice but also faced conceptual and practical gaps with respect to legitimacy. Participatory democratic theories, including the predominant deliberative democracy approach (see Dowding et al 2004) privilege direct citizen participation in political and policy processes over participation via the long chain of representation (Bohman1998; Dryzek 2006;

Pateman 1970). Proponents of participatory democracy share the conceptual concerns discussed above but go further and argue that rather than an expression of democracy, representative forms undermine the essential tenets of participation and agency because of the coercive tendency within the representative relationship (e.g. Bohman 1998; Hendriks 2009; Hilmer 2010; Pateman 1970; Zittel 2006). The participatory approach to political agency looks to forms of direct involvement to facilitate citizen participation as an alternative to representative forms. Commonly also, and inspired by Habermas' theory of communicative rationality (e.g. see Bachtiger et al 2010), participatory theories argue for some form of deliberation among citizens as the central mechanism of participation (e.g. Dahlberg 2005; Innes and Booher 2016). This means direct citizen participation in policy debates and knowledge generation is an alternative to the long chains of representation that produce policy through representative government. These are network governance processes in which the citizen presents their own perspectives and preferences, negotiates and adapts in the context of other interests and values and new knowledge (Bishop and Davis 2002; Innes and Booher 2016). Direct participation and self-*presentation,* rather than mediated *representation,* are held to address the power imbalances inherent in the representative system and lead to rational and legitimate policy positions or decisions (e.g. Dryzek 2012; Dryzek et al 2019). Input and throughput legitimacy are created through direct engagement in collective reason and meaning-making (Dryzek 2012; Innes and Booher 2016; Pateman 1970).

Participatory theories of democracy have underpinned the emergence of a range of participatory institutional forms and structured methods (e.g. Fischer 2003; Fishkin 1991, 2011, 2015). Fishkin and Mansbridge (2017) reiterated the argument that creating a tightly structured deliberative process for the citizen to be directly responsible for the generation of the policy directions reframes the very nature of polity, from representative to participatory. One of the more prominent forms is plebiscites, well established in some democracies, typically occasional and most often associated with policy areas of national significance (e.g. Hessami 2016). The plebiscite is closely coupled to the existing nation-state representative forms but adds a degree of direct and deliberative participation that is codified through constitutional arrangements. Other prominent methods are focused on policy areas

at the sub-national scale, particularly for planning phases (e.g. Bishop and Davis 2002; Innes and Booher 2010). These methods are typically local scale and often geographically defined. They also typically engage ‘everyday people’ in (Ansell and Gash 2008; Reed 2008; Innes and Booher 2016). These include methods such as participatory budgeting at municipal or city level (e.g. Cabannes and Lipietz 2018) urban planning (e.g. Innes and Booher 2010), and environmental resources planning (e.g. Weber 2018). The spread of network media technologies and of low-cost internet access have contributed to the explosion of forms, occurrence and substance of such efforts at direct participation at direct participation (e.g. Ess 2018; UrbinatI 2017). More recent literature has begun to examine the potential for deliberation through internet-based participation to balance the ‘populism’ risks of direct participation as mass consultation (e.g. Fishkin et al 2018). Against Arnstein’s (1969) well-established ‘ladder of participation’, these participatory forms driven by participation democracy theory reflect the higher ‘rungs’ of partnership, delegated power and citizen control.

Despite the drive to introduce more democratic legitimacy, these methods retain a close connection with the representative forms of government and policy (Bishop and Davis 2002). In explaining this proximity to the representative state, proponents have argued participatory approaches to policy and governance increase the throughput legitimacy through direct accountability and in this way reform the representative system (e.g. Curator et al 2017). Others (e.g. Dryzek 2002) have argued for the value of participatory methods within the representative system as important for building citizenry capabilities as the basis for a thriving democracy. For example, on the basis of their empirical research, Innes and Booher (2016) suggested that introducing significant participatory processes into state policy processes increases the adaptive capacity of the citizenry for addressing wicked policy problems. This position reflects the Habermassian model of direct deliberative democratic process, which rests on the quality of public discourse and the citizen’s access to good information and the opportunity to learn from other perspectives (e.g. Flyvberg 1998; Dryzek 2002). The connection between the methods and the state remains close, but the role of the politician and bureaucrat is recast from decision-maker distanced from the citizen via the chain of representation to steward and implementor – more ‘delegate’ than ‘trustee’ – and thereby increasing the input and throughput

legitimacy of the political process. The legitimacy gap of the existing representative mechanisms is addressed by facilitating participation through structured scientific principles rather than the more problematic relationship between representative and citizens. Proponents argue these forms of political participation are more legitimate and more truly democratic approaches to the exercise of power (Curator et al 2017; Mansbridge et al 2012)

Although these forms offer the promise of political agency through direct and deliberative participation, they remain coupled with centralised formal controlling institutional structures of the representative state. Notwithstanding green shoots in the empirical research (e.g. Curato et al 2017; Fishkin 2018; Innes and Booher 2016), a number of problems persist that go to the fundamental link between participation and representation and reveal a legitimacy gap in the principles and practices of participatory democracy. I will address two here that are significant for thinking about throughput legitimacy and participation: the inevitable exclusion implicit in the concept and practices of participation; and distortions in the practice and principles because of the proximity to the representative state.

The problem of managing the scale and complexity of populous plural polities is left largely unaddressed in participatory democracy theory and leads to exclusion of citizens. In a very practical way, the core principle of citizen self-presentation in deliberative processes is difficult to implement in polities with large numbers of people, and with widely diverse interests, values and preferences, simply because there are so many people – it is logistically extremely difficult. A more fundamental criticism is that the problem of exclusion is implicit and inescapable within participatory democracy theory (Young 2002). Young has argued that the principles of participatory democracy cannot hold, as, for some to participate, there must always be those who do not. She argued that minorities are always at risk of exclusion under a large-scale direct participatory state structure in which some version of majority rules must inevitably take hold despite consensus ideals (Young 2002). The foundations of a participatory system, then, must always be established on exclusion. This is not only a conceptual problem, it is also an institutional effect; that is, who participates, who is left out, and

who decides? Considered in this light, the question of who decides on the forms and processes of participation is a foundation stone for legitimacy democratic process.

In practice, resolutions to the exclusion problem rest on representative mechanisms. I will explain this using two examples of prominent participatory practices: structured participatory methods, and stakeholder participation as proxy for citizen participation. Structured participatory methods such as discussed above rely on scientific techniques facilitated by professional elites to manage the problem of exclusion and large-scale participation. Fishkin (2011) for example, proposes population-level polling and probabilistic sampling as ways to replicate the plurality of a polity (see also Fishkin et al 2018). Using these methods, elites such as social scientists and participatory professionals become responsible for the process that produces policy directions that are presented as most likely to reflect what all members of the polity would produce if they could all have a say directly in the policy process (Fishkin 2011). In the most well-funded examples with strong political support, the results are then subject to review and scrutiny of the broader population (Cabannes and Lipietz 2018) – a step that is, in effect, a representative claim (*sensu* Saward 2010).

When viewed through the lens of the intrinsic link between participation and representation, it becomes possible to see that the scientific techniques are representative mechanisms for facilitating participation. They are used to define the terms of a representative relationship between all citizens and those who participate; they are used to define the idea of the citizen; and they are used to convert a representation of the possible plurality of citizens' views and interests into policy and decision. These representative mechanisms, however, are de-politicised and, rather, are given over to scientific methods (e.g. probabilistic sampling). The democratic checks and balances for these representative forms are not clear and effectively shut out some citizens altogether. In doing so, these practices inadvertently sever citizens' democratic responsibilities to control the terms of the representative relationship, a paradoxically non-democratic effect of these participatory methods. Proponents such as Fishkin stake a claim for increased throughput legitimacy through this 'scientised' representation of citizens (Fishkin 2011; Fishkin et al 2018). I suggest this 'scientisation' of representation hides the political nature of representative mechanism and so also hides the gap between the participatory

intention and inevitable and necessary representative mechanism in play. This is a different version of the representation chain, but with ‘scientific methods’ and the participatory professional determining who is in and who is out and converting the plurality into a policy program. Thus, even Fishkin’s sophisticated and carefully designed approaches that privilege participation have not managed to escape the need for representative mechanisms in populous plural societies.

The stakeholder as proxy resolution to the problem of scale also systematically, if pragmatically, excludes people. A body of practice and empirical research has grown around stakeholder participation as a proxy for widespread citizen participation (Reed 2008). Notwithstanding the democratic ideal, Reed, for example, describes the pragmatic approach to the input legitimacy problem:

> *for purposes of efficiency, conservationists focus on engaging those who hold a stake (whether directly or indirectly) in the scope of their initiative rather than attempting to meaningfully engage with the wider public. (Reed 2008, pg. 2418)*

In this resolution, the stakeholder is allocated legitimacy by reference to connection with sets of interests or groups with common values or interests and in this way becomes the proxy for the diversity of citizen interests and values (Reed 2008). In practice, the stakeholder proxy approach nearly always draws on formal representatives, backed by representative associations to substitute for citizen (Reed 2008). This means that the stakeholder proxy resolution relies on the long chain of representation to solve the problem of plurality and scale and to facilitate participation. A conceptual and practical paradox becomes immediately apparent: participatory methods solve the problem using the very representative mechanisms they critique. Explanations like Reed’s pragmatism act as a justification of what is nevertheless a fiction and sleight of hand for participatory approaches to argue for ‘community’ or civil participation while utilising the very representative mechanisms the approach purports to reform. Furthermore, in practical terms the stakeholder resolution means the benefits of the deliberative process can only be experienced by those few who are directly involved in the participatory-deliberative process. It is not at all clear how those benefits might then be distributed

across other citizens (Alonso et al 2011; Bohman 1998; Ganghof 2016; Przeworski, et al. 1999; Urbinati 2005). This means that participatory methods built on the stakeholder resolution merely form another link in the representative chain stretching from citizen to decision-maker rather than reforming the system or substantively facilitating citizen participation and political agency.

The close coupling of participatory methods with existing state structures is a persistent challenge that in practice excludes people from participation. Recent empirical research raises doubts about the possibility of representative system reform via participatory methods and practices (e.g. Flannery et al 2018; Weber 2018). From the citizen perspective, the normative democratic goal of participation predominates: the promise of direct participation as political agency as has been discussed throughout this section. On the other hand, an instrumental or 'technocratic' goal of increasing policy legitimacy and meeting codified or legislated expectations for citizen or stakeholder engagement becomes the driver for policy actors (Bishop and Davis 2002; Howard 2018; Weber 2018; Flannery et al 2018). The recent empirical research points to the way bureaucratic control of codified participatory approaches not only disenfranchises some citizens (Flannery et al 2018), it also controls the extent to which those who are involved do actually influence the policy process (Howard 2018). The efforts rarely in practice proceed beyond the lower rungs of Arnstein's 'ladder' (Howard 2018). In terms of the Scharpf-Schmidt model of legitimacy, this is a throughput legitimacy problem: positive input legitimacy (the participatory method) is disconnected from the output (policy or decision) through an erosion of the throughput legitimacy, i.e. the institutional form of the participation.

Participation, then, is valorised as an effort to address the imbalances of the still-dominant representative institutions of the nation-state. The close coupling between political representation and the representative nation-state, as discussed in the previous section, means that proponents of participatory democracy have sought to distance themselves from the dysfunctions of the representative state. In doing so, I contend, they have largely also turned their backs on the conceptual and practical potential of representation as a mechanism for facilitating participation. I argue this is important because it has meant the necessarily politicised character of representation has been largely overlooked within participatory theories and practices. Common to the critiques

examined here is the inadequacy of participatory theory and practice for dealing with the challenge of converting the diversity of interests, values and preferences into manageable and actionable agendas. In seeking to address the legitimacy gap in the long chain of representation, participatory theory places citizens deliberating together and creating their own unmediated political agency as the only legitimate exercise of their power. In practice, however, institutional efforts at facilitating either direct participatory or deliberative participation resort to technical solutions underpinned by representative mechanisms that are less clear or contestable than those they were to replace. In the process, a different legitimacy gap appears, buried in the practices of participatory methods and obscured by the claims to greater democratic legitimacy driven from participatory democracy theory.

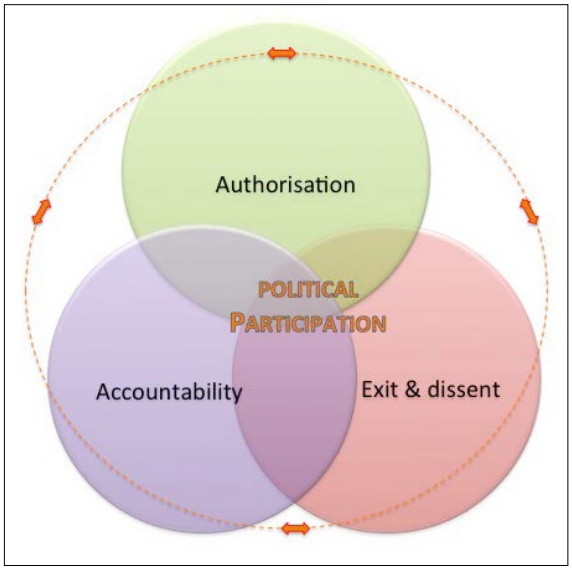
Taken together, my examination of the two major traditions of democratic theory suggest that the central problem of democracy studies – that of facilitating participation – is yet to be settled and remains problematic for network governance that relies on participatory principles and practices. My examination of representative democracy theory showed that the long chain of representation provides little safeguard for the citizen's vulnerability in the representative relationship. Despite the clear accountability measures of the representative chain, the distance between citizen and decision-maker has become too long and not sufficiently legitimate in the contemporary network society. My examination of participatory theory showed that, in practice, participatory methods rely on representative mechanisms as handmaid for the valorised principle of participation. Overlooking representative mechanisms – treating them instrumentally rather than as fundamentally political *sensu* Pitkin – leads to unexpected but no significant legitimacy gaps. In attempting to fulfil the promise of participation, participatory theory and representative democracy theory both fall substantively short. Given my central proposition that participation is always necessarily facilitated through some kind of representative relationship or mechanism, this oversight is likely to be contributing to citizen disillusionment with the promise of participation and forms of network governance. How then can this be addressed? In the next section, I return to Pitkin and revisit her principles of the representation–participation link to find a way forward.

Participation and representation (reprise): revisiting the central dynamic

On the basis on my re-reading of Pitkin 1967, I propose that three normative conditions address the inherent and unstable power relations between participation and representation. The conditions are authorisation, dissent and exit, and accountability (see Pitkin 1967, pp. 113-115, 139, 145, 154, 231-233; see also Brito Vieira and Runciman 2013, pg. 66, 67, 126; Saward 143-145;). The representative must be accountable and the represented must have a way of assessing the relationship, otherwise it is a controlling or authoritarian relationship, and not a *democratic* representation that facilitates political agency. In seeking to solve this problem of representative legitimacy, the 'represented' must, at all times, have the ability, capacity and opportunity to define the scope and terms of the representative relationship, described by Pitkin as the required presence of potential conflict (e.g. 1967, pp. 209, 233). The three conditions (authorisation, dissent and exit, and accountability) must be present and recognisable for each actor for the relationship to be judged as legitimately facilitating democratic participation (e.g. see Saward's logic of exit, 2010, pg.143). In this section, I argue that examining the presence or absence of these conditions, and how they are constituted, provides an approach for analysing the extent to which representative institutions and modes can be said to be facilitating the participation of the represented in political processes. Taken together, as shown in Figure 2, the three conditions comprise a lens for evaluating the legitimacy of a representative–participative mechanism, process or institution.

Figure 2: The lens of participation–representation for evaluating democratic legitimacy.

Adapted from Brito Vieira and Runciman 2013, Pitkin 1967, Saward 2010.



'Authorisation' is the ability of the group or individual to be represented by, appoint, acknowledge or in some way give permission to the representative Authorising a person or group to ensure one's voice and interests are present in the political process is the foundation and initiating process of the representative relationship and the balance between participation and representation. Authorisation in an electoral process is clear – a majority of votes (however defined) for a clearly defined and articulated platform or set of actions and a clearly articulated process by which the interests will be progressed is said to confer authorisation, often called a mandate. The public process of articulating a platform, position or actions, and interpreting how the interest is experienced, and how it 'should' be addressed – or claim making – is a dynamic process of creating and expressing interests and identities that takes place between the would-be representative and the would-be represented. The vote, the opinion polls, social media trends, and organisational membership are common ways in the electoral system for testing the strength of a claim to representativeness (Saward 2010). Outside the electoral system, identifying the authorisation process is no less essential to the legitimacy of the representative's mode of representation (process legitimacy) and no less essential to the judgement of the representative's actions or decisions (output legitimacy).

The ‘dissent and exit’ condition refers to the capacity of the represented group or individual to dispute, object, change or withdraw from the representative relationship. The capacity to withdraw from the representative relationship indicates the freedom of the represented to exercise agency, and freedom from coercion (e.g. Brito Vieira and Runciman 2013, pg. 66; Pitkin 1967 pg. 154 – 155, 159; Saward pg. 143).

‘Accountability’ is the ability of the represented to take responsibility or be held responsible for the actions of the representative. This condition extends the ‘accounting for’ definition that we more readily recognise as accountability in common usage. Accountability here is defined as the ability of the represented to take responsibility, or be held responsible, for the actions of the representative – i.e. to actually participate in the actions of the representative. For participation to have integrity within the representative relationship, the represented must be substantively invested in the actions and consequences, or the relationship is a simpler trustee ‘on your behalf’ representation (e.g. Pitkin 1967, pg. 115). The two senses of accountability – the common usage and the experience of responsibility – must be taken together for a full experience of participation through the representative relationship. The ‘reporting back’ component of the common usage alone reduces the relationship to a passive one tilted in favour of the representative’s autonomy and increasing the potential for coercion. Extending the common usage, however, enables the represented party to experience participation through the absence/presence paradox.

Once again, Pitkin set a foundation for evaluating the legitimacy of the representative relationship, namely the substantive and formalistic dimensions (e.g. Pitkin, pp. 59, 143). The substantive aspects of representation are what the representative does: the objects, impacts or artefacts of the acts of representation, for example a change to a fishing quota, recommendations of a senate investigation process, or a revised coastal development plan. This is equivalent to the output component of the Scharpf–Schmidt legitimacy model (as discussed earlier). The formalistic dimension of political representation refers to the rules, institutions and processes that contain and direct the representative relationship. This dimension is equivalent to the input and throughout components of Scharpf–Schmidt legitimacy model. Pitkin (e.g. 1967, pp. 59, 143) argued that the substantive aspects of

representation are hierarchically secondary to the institutional dimensions. In other words, in the democratic context what a representative achieves matters only once the legitimacy of the representative relationship has been negotiated and established, and in so far as the formalistic dimensions – input and throughput aspects – support or dispute the legitimacy of the representative (e.g. Pitkin 1967, pg. 143). Furthermore, evaluating the legitimisation processes associated with representative institutions raises the questions of who's interests are *not* included, and why this is the case, has become highly significant, as discussed earlier (e.g. see Young 2000; 2004). This means that *how* representative relationships are structured institutionally, formally or informally, and are experienced by the actors is essential to understanding democratic legitimacy. The actors – the represented, the representative and the audience – create, assess and test the balance between representation and agency within institutional processes. The tests of legitimacy lie in the processes of authorisation and accountability and exit and dissent.

Conclusions

Political participation and representation, then, are inextricably linked at the core of political institutions, processes and relationships. Political participation defines democracy; it defines political agency. Political representation is the principle, relationship and set of institutions that connect citizens directly to the allocation of resources, the continuation of the political community and the institutions of the polity. It facilitates their participation in the polity; it gives form to their political agency. I have shown that in the two major discourses of contemporary democracy, participation and representation are treated differently. In neither of these two major traditions is the dynamic of participation–representation accounted for in ways that make sense for the contemporary network context where participation in governance is increasingly expected and effective in dealing with complex policy problems. In representative democracy theory and practice, representative institutions to political agency are privileged, and the long chain of representation underpins the operations of the nation-state. The multiple and emerging sites of participation demanded by contemporary polities, however, are not adequately accounted for. In participatory democracy theory and practice, direct

participation as an ideal and aspiration is privileged as the solution to the problems of the long chain of representation. The representative side of the participation–representation dynamic, however, is downplayed and depoliticised. Practitioners and theorists treat representative mechanisms largely as pragmatic and technical resolutions to scale and exclusion. This means that the challenge of converting large-scale participation into ongoing political structures and processes is not adequately accounted for, leaving participatory practices vulnerable to the exclusion of citizens.

I have established, however, that political representation is always present as an aspect of political participation and must be dealt with both conceptually and in practice. Revisiting Pitkin's theory of political representation has enabled me to reintroduce the essential connection between political participation and political representation and to then re-examine the major traditions. In examining participatory theory and practices through this participation–representation lens, I have identified a bias towards direct participation as the ideal and aspiration for delivering political agency. This bias undermines the capacity of participatory practices to deliver political agency for citizens because it fails to recognise and overtly address the political dimensions of representative mechanisms. I contend that this inability to deal with the paradoxical connection between participation and representation also means that the bias is likely to be exacerbating the contemporary problem of participation, i.e. citizen disillusionment with the promise of agency inherent in the participatory ideal.

I propose that Pitkin's three conditions provide a guide for responding to the power relations implicit in the dynamic connection between participation and representation. The conditions are also a guide to analysing the democratic legitimacy of the forms and institutions of both political participation and political representation. Having re-examined Pitkin's theory, I contend that the presence or absence of any or all of the three conditions provides a test for the legitimacy of participatory processes and approaches in the network society. Taken together, the three conditions form what I label the lens of participation–representation. In this chapter, then, I have set the theoretical foundations for the research in order to problematise the norms and practices of participation in marine governance.

Chapter 4.
The norm of participation in marine governance

The study presented in this chapter is the first step in problematising notions of participation in marine governance to generate fresh insights into the problem of participation, i.e. why is it that efforts at increased participation appear in many cases to result in disillusionment rather than increasing the experience of political agency for citizens? In this chapter, I apply the conceptual lens of participation–representation generated in the previous chapter, to notions of participation in marine governance to test if it can shed new light on the problem of participatory failure. The lens comprises three 'conditions' – authorisation, dissent and exit, and accountability – that taken together assist in assessing the power balance between the inextricably connected modes of political agency – participation and representation (see Figure 2, Chapter 3, pg. 70). Using the lens enables me to account for the intrinsic link between political participation and political representation in marine governance literature and address an analytical gap within the major traditions of democracy theory. Application of the lens in this chapter has enabled me to 'put into question' the assumptions of the dominant conceptualisation of participation in marine governance. Accordingly, the research questions for this study were: *(1) What is the dominant conceptualisation of participation within the marine governance theory and practice?* and, *(2b) What does application of the participation–representation lens explain, if anything, about the dominant conceptualisation of participation in the marine governance literature?*

This chapter opens with a description of the innovative methods used to establish the most influential marine governance papers. In the second section, I address research question 1 and analyse the dominant conceptualisation of participation in the marine governance literature. I identify the major paradigm applied to marine governance which is source of an ontological conceptualisation of participation, and the theoretical basis of the paradigm. In the third section of the chapter, I address research question 2 and examine how the connection between participation and representation are

handled within the major paradigms. I finish the chapter with an assessment of the likely limits participatory practices influenced by the dominant paradigms will face in delivering democratic throughput legitimacy, based on the extent to which the precepts of the dominant paradigms are or are not able to account for the intrinsic link between participatory ideals and aspirations and the pragmatic representative mechanisms utilised to facilitate participation in marine governance.

Methods and materials

The purpose of this study was to examine the dominant conceptualisation of participation in marine governance. To do this, following Garcia-Lillo et al 2017, I identified highly influencing texts and associated clusters of intellectual sympathy across marine governance literature relevant to Australia and Canada. The methods I have used in this study introduce two innovations to qualitative interpretive research. Firstly, to identify a purposive sample from a large corpus of literature, I used emerging quantitatively based qualitative bibliometric methods using the Vosviewer software[6] to analyse a large base corpus of material but also qualitatively determine intellectual influence. The steps I used are described below. Secondly, I introduced an artificial intelligence method to qualitatively analyse the material and triangulate the finer-grained interpretive qualitative analysis of the materials. Here I used automated conceptual analysis using the Leximancer software[7] (Angus et

[6] Vosviewer is a software tool for constructing and visualising bibliometric networks, https://www.vosviewer.com, accessed March 2018. Vosviewer was developed by researchers of the Leiden University's Centre for Science and Technology Studies (CWTS) as a tool for better understanding the scholarly impact of peer review articles. The software remains a product of the CWTS and the Centre provides support for researchers using the software. For this study I used Vosviewer version 1.5.5.

[7] Leximancer is an Australian-developed text analysis program. It is designed to inductively identify the concepts and themes across a set of texts, as well as the connections between concepts and themes. The materials are presented visually alongside the text sources (Leximancer User Guide Version 4.5, accessed April 12, 2018). Leximancer was developed by Dr Andrew Smith at the University of Queensland (Australia), and is now a commercial product available through the company Leximancer Pty Ltd. In this study I used Leximancer version 4.5, licensed to the University of Tasmania.

al 2013; Sotiriadou et al 2014), the specific steps I used are described below. The value in these innovations was firstly in ensuring a quantitative basis for the analysis, and secondly in triangulating the analysis, and in so doing strengthening the replicability and reliability of the research. Meeting these criteria has largely restricted qualitative and interpretive research to smaller samples resulting in limited generalisability (Tracy 2010).

Generating the sample for analysis

This study was conducted as a qualitative content analysis of 14 influential marine governance papers which are discussed in detail below. The material for this study comprised a purposive sample of highly influential marine governance journal articles. A purposive sample is one in which information-rich cases are actively identified as the basis for the research (Etikan et al 2016; Teddlie and Yu 2007). Determining a purposive sample of influential texts from the vast body of marine governance literature required two things: 1) a base corpus of marine governance literature, and 2) a reliable method for determining highly influential papers.

(1) Base corpus

The base corpus of papers was generated using established systematic literature search methods, and the details of the method can be found in Appendix 1. In summary, the steps involved a replicable systematic search of the academic literature using a combination of the following 5 search terms:

i. ‘marine or coastal’ [and/or] ‘governance’;
ii. ‘marine spatial planning’ [and/or] ‘governance’;
iii. ‘marine protected areas’ [and/or] ‘governance’;
iv. ‘marine renewable energy’ [and/or] ‘governance’; and,
v. ‘aquaculture’ [and/or] ‘governance’.

I used these terms to capture the breadth and diversity of forms of marine governance as well as the range of research methods addressing governance of marine ecosystems. The result of combining

the lists from both databases (and removing duplications) was a raw corpus comprising 2829 papers. I then added two additional search filters to the raw corpus to ensure the base corpus aligned with my research scope (see Introduction, pg. 23): 'Australia' and 'Canada' (see Appendix 1 for details), and with an assumption that key literature from within these countries would have greater salience for them than the general international literature. The result after 'cleaning' the combined database (see Appendix 1) was a base corpus of 724 journal articles.

(2) Method for generating the purposive sample

For the second requirement, 'second generation' bibliometric methods from information sciences were combined to generate the purposive sample from the base corpus. The detailed methods for generating the purposive sample can be seen at Appendix 1. Contemporary bibliometrics uses co-citation statistics and network mapping of a body of literature to identify research influence and impact. The computer-assisted statistical methods produce substantive analyses of research fields, or 'research landscaping' (Rowe 2014), that go beyond simple citation counts (Ellegaard and Wallin 2015; Garcia-Lillo et al 2017; Naukkarinen and Bragge 2016; Wallin 2005; Van Eck et al 2014). Co-citation refers to the citation of two (or more) papers together in a third citing paper (Small 1973). The higher the frequency of co-citation, the closer the intellectual links between all authors (Garcia-Lillo et al 2017). This approach addresses the problem of using just citation counts, i.e. quantity of citations, which can only indicate frequency of citations but does not explain the substantive use of the material cited; for example, as explanatory, supportive, critical or review (Garcia-Lillo et al 2017; Naukkarinen and Bragge 206; Wallin 2005; Van Eck and Waltman 2014).

Bibliometric software Vosviewer has been designed specifically for such analyses (Van Eck and Waltman 2014) and was used in combination with literature indexing database citation data to generate the sample. Two indicators of influence were used: 'descendant' and 'ancestor' influence. Descendant analysis uses citation data to explain which papers are likely to have had substantial impact on other researchers based on how often they have been cited (Van Eck et al 2014). The

specific steps I used for descendant analysis are described in Appendix 1 (pp. 298-300). Ancestor analysis uses co-citation data and network mapping co-citation and keywords to identify papers that are most commonly referenced within a given corpus (Culnan 1986). The specific steps I used for the ancestor analysis are described in Appendix 1 (pp. 300 – 301). The two methods, citation 'descendant' analysis and co-citation network 'ancestor' mapping bring together complementary indicators of both intellectual sympathy or connection between authors, and constellations of major theoretical concepts and/or methods to produce a picture of intellectual influence (Garcia-Lillo et al 2017; Waltman et al 2010).

A risk in using this approach lies in potentially creating an 'echo-chamber' effect through the co-citations and clusters of intellectual sympathy'. For a systematic literature review, for example, this might constitute a limitation, particularly when zoning in to analyse the most highly influencing clusters. However, as noted above, the purpose of this study was to identify these clusters of intellectual sympathy to precisely examine the most highly influencing clusters. That means that for this study, the method was appropriate rather than a limitation. I recognise there are other, more qualitative, ways to establish intellectual sympathy and influence. However, the methods used here combined established protocols from both systematic literature review and second-generation bibliographic analysis for understanding research impact and influence, as discussed above. This means that although there are other approaches to establishing influence, the approach I have taken is nevertheless rigorous and replicable. On this basis, I assumed that I have been able to produce set of influential papers that are also a plausible proxy for the conceptualisations of participation across the base corpus.

Coding and analysis

Qualitative content analysis is a structured, replicable method of interpreting textual data using a systematic process of coding and is appropriate for examining complex social phenomena such as marine governance (Fereday and Muir-Cochrane 2006; Neuendorf 2017; Stemler 2011). It was therefore appropriate for this study. Qualitative content analysis is strongly associated with inductive

research, but it is also well suited to deductive or 'directed' analysis (Fereday and Muir-Cochrane 2006; Neuendorf 2017), making the approach particularly relevant to my objective of examining how participation is conceptualised. The qualitative content analysis for this study was conducted through three steps: inductive analysis of each paper in the set; deductive coding across the data set; and automated (computer-assisted) inductive conceptual analysis.

- **Close reading of each paper in the set:** Firstly, each text was analysed for: 1) the main general themes across the sample to understand the primary drivers of marine governance theory and practice, and 2) conceptualisations of participation to ensure any outlier or unexpected approaches to participation were captured alongside those from the previous deductive step. The codes used to organise this inductive step can be seen at Appendix 2, and the results of the analysis can be found at Appendix 3.

- **Deductive coding across the data set:** Secondly, sentences and paragraphs from each paper were coded deductively using NVIVO 10 for Mac, with a specific focus on conceptualisations of participation (see Appendix 4 for the coding rules). The coded data were analysed for patterns and themes to enable comparison across the papers in the sample and identify dominant conceptualisations.

- **Automated inductive conceptual analysis:** Thirdly, concepts and themes across the data set were analysed by computer-assisted automated conceptual analysis Leximancer software to generate a replicable, non-biased inductive and qualitative analysis of the material.

To triangulate the data, I used the Leximancer software to identify the dominant themes and concepts and compare these to my own coding. Leximancer is an automated content analysis software that analyses the frequency of concepts. It does this by extracting collections of terms (or words) that comprise the concepts and then creates co-occurrence clusters of concepts (Leximancer User Guide 2018). The co-occurrence clusters are then depicted as visual network 'maps'.

The data, i.e. the text of the paper, were ‘cleaned’ for use in Leximancer by creating a Microsoft Word version of the body of the paper, removing headers and footers, the title and abstract, author details and section subheadings. The results of the computer-assisted analysis were compared with my inductive and deductive coding to validate my coding and ensure significant concepts were not overlooked. The results of each of these three steps were synthesised to address the research questions. In the following sections the three steps of analysis are presented.

Findings and analysis

The purposive sample of influencing texts

The replicable steps I took to arrive at the sample of influencing papers are set out in detail in Appendix 1. In summary, the results from the descendant and ancestor analyses of the base corpus were combined and the top 15 were selected on the basis of the commonality between the highest counts in both analyses (descendant and ancestor). This means these 14 papers were highly influential across the base corpus marine governance literature. These are set out in Table 4 below.

Table 4: Data set of highly influencing journal articles in marine governance

Reference
Adger, W.N., Hughes, T.P., Folke, C., Carpenter, S.R. and Rockström, J., 2005. Social-ecological resilience to coastal disasters. *Science*, *309*(5737), pp.1036-1039.
Armitage, D.R., Plummer, R., Berkes, F., Arthur, R.I., Charles, A.T., Davidson-Hunt, I.J., Diduck, A.P., Doubleday, N.C., Johnson, D.S., Marschke, M. and McConney, P., 2009. Adaptive co-management for social–ecological complexity. *Frontiers in Ecology and the Environment*, *7*(2), pp.95-102.
Berkes, F., 2009. Evolution of co-management: role of knowledge generation, bridging organizations and social learning. *Journal of Environmental Management*, *90*(5), pp.1692-1702.
Christie, P., 2004. Marine protected areas as biological successes and social failures in Southeast Asia. In *American Fisheries Society Symposium* (Vol. 42, No. 155-164).
Defeo, O., McLachlan, A., Schoeman, D.S., Schlacher, T.A., Dugan, J., Jones, A., Lastra, M. and Scapini, F., 2009. Threats to sandy beach ecosystems: a review. *Estuarine, Coastal and Shelf Science*, *81*(1), pp.1-12.
Dietz, T., Ostrom, E. and Stern, P.C., 2003. The struggle to govern the commons. *Science*, *302*(5652), pp.1907-1912.
Folke, C., Hahn, T., Olsson, P. and Norberg, J., 2005. Adaptive governance of social-ecological systems. *Annual Review of Environmental Resources*, *30*, pp.441-473.
Gelcich, S., Hughes, T.P., Olsson, P., Folke, C., Defeo, O., Fernández, M., Foale, S., Gunderson, L.H., Rodríguez-Sickert, C., Scheffer, M. and Steneck, R.S., 2010. Navigating transformations in governance of Chilean marine coastal resources. *Proceedings of the National Academy of Sciences*, *107*(39), pp.16 794-16 799.
Gutiérrez, N.L., Hilborn, R. and Defeo, O., 2011. Leadership, social capital and incentives promote successful fisheries. *Nature*, *470*(7334), p. 386.
Hughes, T.P., Bellwood, D.R., Folke, C., Steneck, R.S. and Wilson, J., 2005. New paradigms for supporting the resilience of marine ecosystems. *Trends in Ecology and Evolution*, *20*(7), pp. 380-386.
Jentoft, S., 2007. Limits of governability: Institutional implications for fisheries and coastal governance. *Marine Policy*, *31*(4), pp. 360-370.
Jentoft, S., van Son, T.C. and Bjørkan, M., 2007. Marine protected areas: a governance system analysis. *Human Ecology*, *35*(5), pp. 611-622.
Ostrom, E., 2007. A diagnostic approach for going beyond panaceas. *Proceedings of the National Academy of Sciences*, *104*(39), pp. 15 181-15 187.

Ostrom, E., 2009. A general framework for analyzing sustainability of social-ecological systems. *Science*, *325*(5939), pp. 419-422.

An initial look across the titles shows that some of these papers deal specifically with fisheries or other resource problems (i.e. sandy beaches in the case of Defeo et al 2009) and a number do not deal with marine ecosystems directly at all. This is unsurprising because the purpose of the analyses was to understand intellectual influence over the marine governance corpus, and influence from outside marine governance discipline could be expected.

The development of the social-ecological systems paradigm: inductive analysis of the most influencing texts

In this section, the results of inductive analysis and theming of each paper is set out under a subheading that captures the core of each theme. The coding rules used for the two-step analysis are set out in Appendix 2 and Appendix 4. Reference to author and page numbers are provided throughout to link the reader to examples of text that were the basis for the interpretive analysis. An account of the inductive analysis of each paper can be found in Appendix 3.

Resource failure and sustainable management – Dietz et al 2003 and Christie 2004

The driving imperative in the early two papers, Dietz et al (2003) and Christie (2004), is conserving fisheries stocks, or ecosystem services, from over-exploitation and potential collapse. To achieve these, the primary focus is on building compliance and resolving conflicts over resources. Social processes are identified as the lowest cost and also necessary approaches to doing so (e.g. ‘can spark learning and change’, Dietz et al 2003, pg.1909; Christie 2004, pg. 162).

The social processes here are input to state-owned rules (for resource use and sanctions), in-person communication among the stakeholder group (‘well-structured dialogue’, Dietz et al 2003, pg. 1910) to build interpersonal relationships (‘dense social networks’, Dietz et al 2003, pg. 1908 and ‘social

capital', Dietz et al 2003, pg. 1910; 'the creation of dependent relationships', Christie 2004, pg. 162) testing models and reviewing ecosystem science together ('analytic deliberation', Dietz et al 2003, pg. 1910) and social monitoring (Christie 2004, pg. 162).

The participants are resource users, decision-makers (Dietz et al 2003, pg. 1010), which means formally organised NGOs, and 'community' (Christie 2004, pg. 157, 160). The role of 'science' remains implicitly privileged for information provision to enable stakeholders to learn about ecosystem conditions and as a foundation for achieving compliance and generating alternative management options (Dietz et al 2003, pg.1909; Christie 2004, pg.162). To achieve the management imperative, the policy actors should extend a portion of power to resource users and stakeholders through structured dialogue processes, with the processes mediated by science actors.

Participation, then, is assumed as necessary and the purpose is instrumental. That is, the purpose is clearly linked to achieving the outcomes specified by the legislative and formal resource management tools (Dietz et al 2003, pg.1908) by increasing compliance using social resources – such as trust, buy-in and interpersonal relationships – as strengthening factors and reducing other social resources, such as conflict or lack of personal commitment, as a prohibiting factors.

This is the simplest formulation of the participation norm – it works to get the ecosystem or resource outcome.

'Apocalypse now': Adaptation, change and uncertainty: the introduction of the social-ecological systems paradigm – Adger et al 2005; Folke et al 2005; Hughes et al 2005

This subset of three papers is strongly influenced by Carl Folke from the Stockholm Resilience Centre, Stockholm University. Folke is a co-author on two papers and author of one.

Together these papers introduced social-ecological systems theory (SES) and used it to explain how human societies might adapt to the impending, and likely catastrophic, changes in both ecosystems and the human societies dependent upon them. Hughes et al (2005), for example, explicitly positions

the SES approach to governance against the single-sector/species hierarchical govern*ment* approach that the authors seek to leave behind as dysfunctional or at the very least as ineffective (pg. 380). There is a strong sense of urgency across these papers with terms like ‘disaster’ and ‘shocks’ (e.g. Adger et al 2005 title ‘Dealing with Disaster’), ‘unwanted regime shifts’ (Hughes et al 2005, pg. 380) and ‘abrupt, disorganizing and turbulent’ change (Folke et al 2005, pg. 442). An apocalyptic tone is discernible reflecting the growing concerns expressed in each paper regarding climate change and spikes in extreme climatic events globally in the preceding years (Adger et al 2005, pg.1036).

In this subset, adaptive capacity and the social processes that underlie adaptive capacity are at the centre of attention. Ecosystem complexity, diversity and dynamics are held to also be true for social systems (Adger et al 2005, pg.1037) and for the connections of interdependency between social and ecological systems (Adger et al 2005, pg. 1036, 1037; Folke et al 2005, pg. 443; Hughes et al 2005, pg. 380).

The dominant social processes discussed in this set are knowledge generation, social learning and social networks that not only characterise civil society (Adger et al 2005, pg. 1037, 1038; Folke et al 2005, pg. 447, 448, 450) but are also required for the interactions between levels of governance (Adger et al 2005, pg. 1038, Folke et al 2005, pg. 445, 446, 449; Hughes et al 2005, pg. 384) or modes of governance: multiple-state scale, market and civil (Adger et al 2005, pg. 1039; Folke et al 2005, pg. 448, 449).

The forms of participation are social processes like collaborative problem solving, self-organising, trust building, dialogue and social memory (Folke et al 2005, pg. 453; Hughes et al 2005, pg. 383); Institutionally, the interest is in flexible, multi-scalar, network forms of interaction, such as bridging organisations, cross-jurisdictional projects, and polycentric and multi-level governance systems (Adger et al 2005, pg. 1039; Folke et al 2005, pg. 444, 461; Hughes et al 2005, pg. 83). Power or formal authority and participation cross institutional boundaries and are carried via social processes across networks (Adger et al 2005, pg. 1039; Folke et al 2005, pg. 449; Hughes et al 2005, pg. 384).

The social processes are extended across civil society through key group roles and functions, and the quality of leadership emerges as a prominent concern (Folke et al 2005, pg. 454). In this subset, self-organisation, that is communities of interest organising their own systems of governance, is presented as an important principle, and an authoritative responsible actor, such as the bureaucracy, is no longer necessarily the central responsible point (Adger et al 2005, pg. 1039; Hughes et al 2005, pg. 383).

Self-organisation across civil society is promoted as an effective strategy for governments; the state is treated as one of a number of participating actors; and power is dispersed across civil society and through whatever institutional forms of governance are at play (Adger et al 2005, pg. 1039; Folke et al 2005, pg. 449; Hughes et al 2005, pg. 384). The generative actor could be anyone; that is, not only governments or policy actors with a specific need but also 'interested publics', groups of resource users or self-organising coalitions of groups.

The meaning of participation in this subset becomes ontological and epistemological – that is, it is an expression of how the world works, how knowledge is generated and how change is effected – and so also a normative prescriptive perspective on participation.

'Beware the panacea': governance and policy under the social-ecological systems – Jentoft 2007; Jentoft et al 2007; Ostrom 2007

This third subset of texts confirms the SES approach as a paradigm and moves to delving specifically into the mechanics and complexity of governance under this paradigm. At the heart of the SES paradigm in these texts is the complex adaptive ecological system with humans and participation at the centre. These texts are firmly within the paradigm and do not offer an alternative explanation for how marine resources could be understood (Jentoft 2007, pg. 362; Jentoft et al 2007, pg. 613; Ostrom 2007, pg. 15 181). Each examines the complexity, diversity and dynamics of the governance system and argues for balancing large- and local-scale dynamics – both social and ecological. In arguing that SES practice requires more complexity rather than simplicity, each text details a diagnostic approach and provides analytic devices for governance design and practice.

These three texts promote the features identified in the previous set:

- social processes as fundamental to governance (Jentoft 2007, pg. 360, 362, 364, 366; Jentoft et al 2007, pg. 615, 617; Ostrom 2007, pg. 15 184–15 185);
- social capital as an essential component or resource for the governance system (Jentoft 2007, pg. 364, Jentoft et al 2007, pg. 615; Ostrom 2007, pg. 15 184);
- self-organising, flexible, interconnected multi-scalar network institutions for governance (Jentoft 2007, pg. 364, 365, 367; Jentoft et al 2007, pg. 616, 618, 619; Ostrom 2007, pg. 15 181,15 182, 15 185); and
- power sharing across the governance system (Jentoft 2007, pg. 365; Jentoft et al 2007, pg. 619).

In adding guidance to what SES approach to governance entails, Jentoft's (2007) paper introduces an analysis of power dynamics and political processes as a subset of SES social processes and provides a specific diagnostic for how the 'stakeholders' as the primary participants might be recognised and engaged. Ostrom (2007) contributes an analytic frame of influencing variables derived from empirical research. Jentoft et al. (2007) provide a working case study of a diagnostic approach in their analysis of a marine protected area as a governance system.

In each of these papers, stakeholder, user-group or individual participation is assumed as a characteristic of the system (Jentoft 2007, pg. 362, 364; Jentoft et al 2007, pg. 615; 626, 619; Ostrom 2007, pg. 15 181). The logic common to these texts is that working productively with social and political processes and ensuring people can develop and generate an equitable and just distribution of the costs and benefits of a governance regime will result in better ecological outcomes and, therefore also, lead to positive social and political outcomes) (Jentoft 2007, pg. 360, 367, 368; Jentoft et al 2007, pg. 613, 615, 619; Ostrom 2007, pg. 15181, 15182, 15186) .

In this subset, as with the previous set, this instrumental logic to participation is based on the ontological assumption of complexity, diversity and dynamics, social processes and human agency as defining the SES way of understanding the world. Jentoft et al 2007's conclusion in this respect is expressed succinctly as follows:

> *Rather, the participation of user-groups and stakeholders is among those principles that, according to governance theory, should underpin marine and coastal governance as a value in itself. (pg. 619)*

Synthesising and operationalising SES governance – Armitage et al 2009; Berkes 2009; Ostrom 2009

Each of these papers proposes an approach for addressing gaps in implementing or operationalising adaptive governance for the SES context. Each introduces more detail for thinking about governance under SES conditions that reinforces the necessity for collaboration, social learning and knowledge generation and integration among levels of responsibility or government as the basis for effective governance established in the previous sets (Armitage et al 2009, pg. 96; Berkes 2009, pg. 1692; Ostrom 2009, pg. 420, 421).

In each of these papers, the problem to be solved is generating new forms of governance for sector-based resources and human-use problems, e.g. fisheries, within the SES frame. Both Berkes (2009) and Armitage and his co-authors (2009) bring together existing resource management approaches with co-management and adaptive management approaches to establish a sense of evolution of governance towards adaptation through participatory and network governance forms. To facilitate the emergence of self-organising governance innovations, Ostrom (2009) offers a framework of system and subsystem variables to analyse the conditions of any resource commons context.

With respect to social processes as the foundation, in each paper social processes are accepted as the starting point for governance and each adds detail to how social processes can best be facilitated:

- Armitage and his co-authors argue for ten conditions for governance institutions that will foster collaboration and social learning as the basis for adaptive co-management (Armitage et al 2009, pg. 101);

- Ostrom (2009) addresses the technical challenges of combining knowledge systems in order to operationalise learning-based governance structures; and

- Berkes (2009) explains how learning and knowledge sharing work and on this basis argues for bridging organisations as a form of institutional innovation.

Power is assumed to be dispersed across the governance system, and specific issues related to this are considered in each paper. Armitage and his co-authors (2009) emphasise that the socially based forms of governance required under SES conditions can take a long time and note that such forms of governance also depend to some degree upon the political will of the state or bureaucracy involved (Armitage et al 2009, pg. 97). Both Berkes (2009) and Armitage et al (2009) raise the importance of understanding and addressing power imbalances through participatory governance forms (Armitage et al 2009, pg. 98; Berkes 2009, pg. 1693). Ostrom (2009) argues self-organising governance innovations are the means to address the shortcoming of existing top-down legislative governance for managing the resource commons problem (Ostrom 2009, pg. 421).

In each paper, the participants are resource users, reflecting the resource problem framing noted above, although in Berkes' paper the terms 'resource user' and 'communities' are used somewhat interchangeably to reflect the diversity of social groupings necessary for governance (2009, pg. 1693, 1697, 1698). Resource user participation is held to be central to generating innovative governance solutions as a function of social learning (Armitage et al 2009, pg. 97; Berkes 2009, pg. 1694; Ostrom 2009, pg. 421). In each paper, resource user and community participation are both held to be important for governance for the SES context occurs (Armitage et al 2009, pg. 97, 100; Berkes 2009, pg. 1696, 1700; Ostrom 2009, pg.421).

Once again, in this set the logic for participation is instrumental and foundational: participation of resource users is essential for innovation and dealing with complexity and change in the SES context.

Empirics and how to transform governance –Defeo et al 2009; Gelcich et al 2010; Gutierrez et al 2011

Each of these four papers assumes the SES framing in common with each of the previous sets. Each is also concerned with how to effect the transformation of governance to meet the SES framing of resource problems. In each paper, the problem to be solved is a single-sector resource problem at the local level but framed in the SES context of interdependency and complex dynamics.

Defeo and his co-authors (2009) focus almost exclusively on the technical threats to sandy beach ecosystems but nevertheless finish their paper with the assertion that that local stakeholders' participation in governance is ultimately essential (Defeo et al 2009, pg. 9). Gelcich et al (2010) and Gutierrez et al (2011) contribute empirical analysis of case studies to understand enabling factors and conducive conditions for governance innovation and transformation. Cinner and his co-authors (2012) also focus at the local level and introduce a greater level of detail on power relations within the governance context and the interdependencies between ecological outcomes and social and economic outcomes.

In these papers, social processes are reaffirmed as critical success factors in transforming governance: community-based leadership, social cohesion and social capital, and co-generation of knowledge through resource user partnerships with scientists (Gelcich et al 2010, pg. 16 794, 16 795, 16 798; Gutierrez 2011, pg. 386, 387). These social processes are regarded as both pre-conditions and active transformative mechanisms for shifting governance from a technical top-down use of regulation and management levers to effective network-based engagement of resource users in determining the new needs to produce sustainable fisheries (Gelcich et al 2010, pg. 16 794; Gutierrez et al 2011, pg. 386, 388).The predominant participants in these papers, as with the previous papers, are local level resource users and also reference 'communities' (Gelcich et al 2010, pg. 16 798; Gutierrez et al 2011, pg. 386).

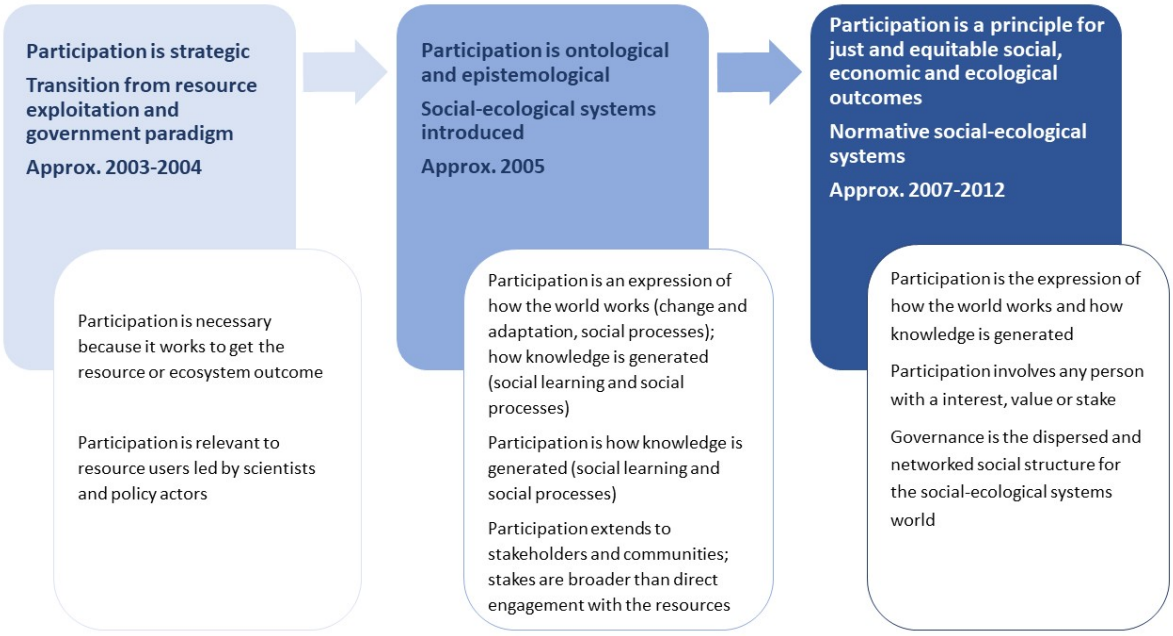
The conceptualisation of participation in these final four papers is consistent with all previous sets: participation is assumed (ontological) and so therefore necessary, underpins the social processes that define how a social-ecological system works, and is instrumental in achieving adaptation to ecosystem problems.

Summary comments

Taken together, the 14 papers show the development of the influence of the SES paradigm across the marine research and practice. Starting with the problem of resource failure and coming to terms with what 'sustainable management' actually means and how it can be achieved, the systems approach opened a new way of looking at the problem – from resources sector to linked social and ecological systems. This was a major shift in thinking about human uses and the changing marine environment. It gave rise to a rich scholarship seeking to understand and explain how human and ecological systems together will respond to climate change and find opportunities for minimising negative impacts of climate-driven changes and the human problems of over-exploiting marine commons (including species). Underpinning all the papers is the framing of SES governance and policy as social systems and social processes: social learning, deliberation, knowledge co-generation, all leading to changes in human interactions with the ecosystem to achieve 'sustainability'.

The development of the conceptualisation of participation through these papers is depicted in Figure 3 below.

Figure 3: Depiction of the development of the dominant conceptualisation of participation from instrumental to ontological under the influence of the social-ecological systems theory



The conceptualisation of participation is ontological within the SES theory in that it defines how the world works. On this ontological basis, participation is then also an instrumental dimension of the social processes of governance and policy. Participation is the means by which social processes work. This conceptualisation of participation is consistent across these papers that have been highly influential for marine governance research and the practice reflected in the research. This indicates that by 2011 this conceptualisation had become embedded as a dominant and deep-seated norm for marine governance.

Who participates, how and why: deductive analysis of the most influential texts

In this section, the results of the deductive analysis using NVIVO software are set out according to the coding framework. The codebook used for this analysis can be found in Appendix 4.

Who (participant types)

Across the data set, the participant types were consistently actors most directly associated with the marine resource in practical, and primarily economic, ways: ‘resource user’, ‘user-groups’ and ‘stakeholders’. Closer analysis of the generic terms ‘users’ and ‘user-groups’ showed these most often referred to the fisher, as small-scale enterprise, and commercial fisheries as corporate actors. The term ‘stakeholders’ appeared commonly across the set, though in slightly differing ways: sometimes interchangeably with resource users such as fishers and in other cases to capture a range of mostly unspecified other interests most prominently as non-government organisations representing conservation concerns. This indicated a growing awareness of the rights, stakes, interests, values and even identities of non-fishers across the period. It also indicated, however, that fishers or actors commercially connected at a local level to a resource remain the primary participant type in focus for marine governance research. The second most prominent participant type across the set was the state represented as terms such as ‘policy officer’ or, more often, ‘managers’, ‘management’ or ‘resource managers’. This is unsurprising because these are the central actors in the existing hierarchical governance system.

How (forms of participation)

Social processes focused on building social capital and trust, collectively generating rules and practices and generating social learning, arose as the predominant forms of participation consistently. Specific institutional forms of such social processes were not specified but rather, common across each paper was a focus on social learning, sharing power through knowledge generation to deal with uncertainty and building productive relationships between and among actor groups. Engaging with, building and extending through networks of relationships figured prominently and indicated assumptions about how social processes work. Specifically – and perhaps institutionally – how this might happen was largely left unspecified. By 2009, greater attention was paid to the mechanics of how such social processes might be structured institutionally and also an emphasis on tailoring institutional arrangements and forms of participation to local conditions to enable institutional change

that ensures governance rules and processes reflect the dynamics and particularities of a given social-ecological system (or society) (Armitage 2009; Jentoft 2007; Ostrom 2009)

A growing call for the state to make space for self-organising institutions and shift flexibly to respond by sharing power to set rules and make decisions was evident across the set. The state appeared across the data set via the policy actors as audience and participant of the SES social processes approach. Reference to the state was primarily oblique but consistent, for example, or as the 'resource management system'. Attention to how a bureaucracy, i.e. policy actors, negotiates the recommended participatory processes was minimal and primarily by reference to sharing power and developing dynamic links with social networks. This included developing inclusive links with the directly politicised processes of interest formation and interest coalitions.

Why (problems to be solved by participatory approaches)

The overarching concern common across the papers was that of marine ecosystem change under climate change and increased human exploitation of marine ecosystems. Social change readiness and the capacity of societies to adapt to either radical or incremental ecosystem change were the common primary drivers. There was a high degree of consistency in the descriptions of specific problems-to-be-solved that were regarded as necessary for humans to adapt to changing ecosystem conditions. There were:

- reducing conflict in order to avoid over-exploitation and enable new forms of resource use;
- building social capital and other 'social resources', particularly trust and interpersonal connections and shared norms, across stakeholder networks in order to:
    - reduce non-compliance and enable new forms of resource use to develop, and
    - increase the capacity of a society to adjust to new ecological conditions;
- increase the legitimacy of changes to resource use and subsequent changes in livelihood impacts.

The reasons for participation, then, reveal strong concerns about impending significant ‘disruptive’ or ‘unwanted’ change, and at times a distinctly compassionate tone to the resolutions (‘nurture renewal’). Furthermore, participation in social processes is proposed as the solution to addressing those concerns.

Summary comments

Across each of the three deductive categories (who, how, why), participation was conceptualised as the foundational and instrumental means for addressing impending changes in the marine ecosystem. Social processes of learning, knowledge co-generation, building trust and relationships were the central forms of participation. The social processes are focused on reducing conflict over use of marine ecosystems and facilitating new behaviours and ways of thinking about interactions with the marine ecosystem in the context of ecosystem change. Descriptions of how participation should be structured were not specific in terms of institutional design but rather reflected through extensive discussion of social learning, knowledge co-generation, social capital and trust building. Relationships with the state as the asset regulator were treated largely as a backdrop to the requirement for sharing power and authority across governance networks to reform existing government systems. In practical terms, the focus was on stakeholders or resource users implying close proximity to the marine ecosystem and is the key legitimacy criteria for participatory actors.

Marine governance as social and local: automated conceptual analysis

The two most dominant themes (Figure 4) were ‘social’ and ‘local’ and were significantly stronger than the remaining three as can be seen in Table 3). The shared area between these two dominant themes is large and comprises the top four concepts (marked with asterisks in Table 3).

Figure 4: Automated analysis of the dominant themes: The results are colour-coded to indicate strongest to weakest associations: red is the most dominant theme, followed by yellow-green and on through the colour wheel to green and then the 'cooler' blue and purple (Leximancer User Guide 2018, pg. 12).

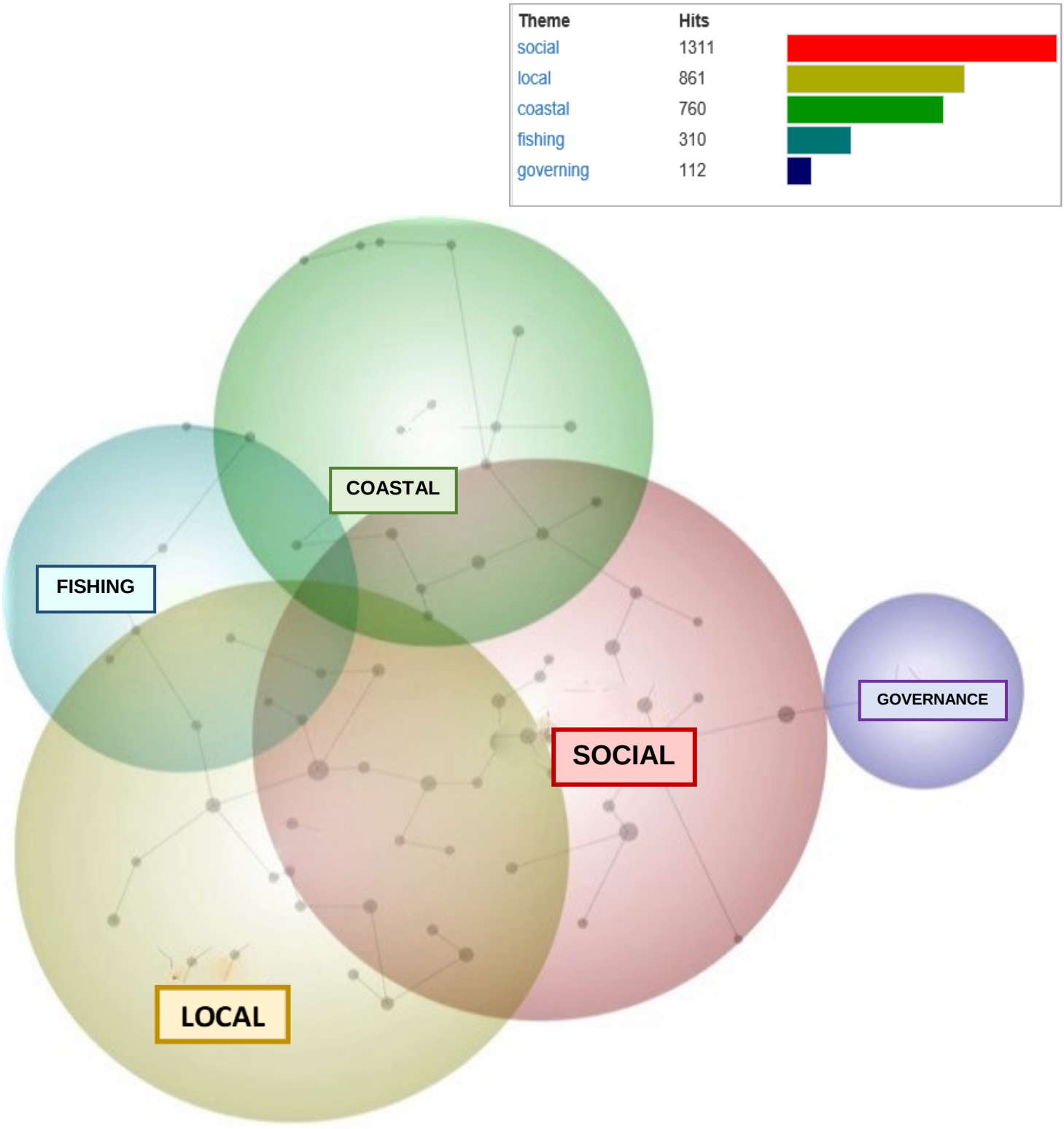


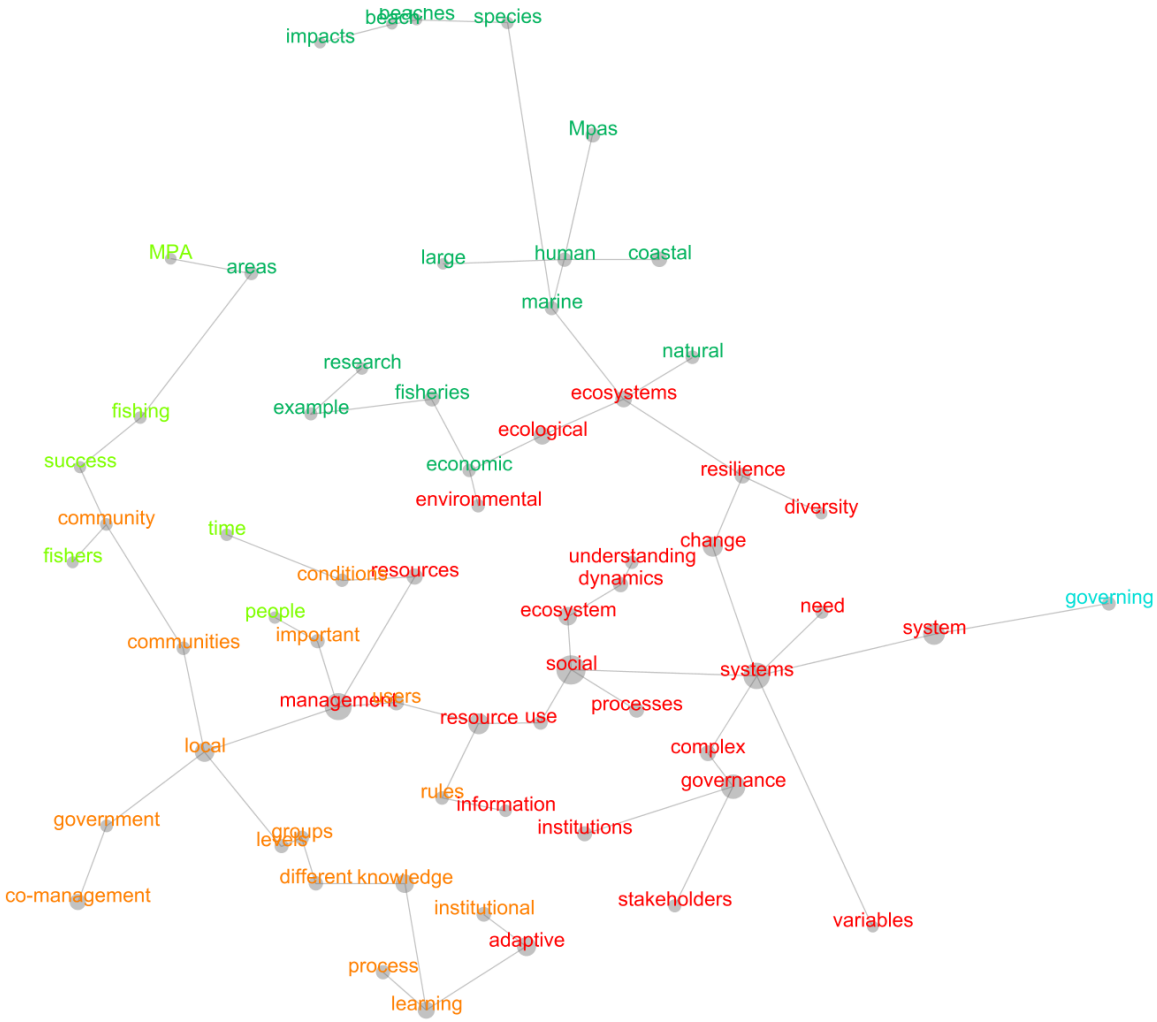
Table 5: Detail the composition of the themes

Theme	Domain Ranked	Number of text elements	Concepts comprising the theme (number of concepts in brackets)
Social	red (1)	1311	Social*, systems**, management***, governance****, resource, change, adaptive, ecosystem, ecological, ecosystems, resources, complex, dynamics, users, institutions, processes, use, environmental, conditions, understanding, stakeholders, information, diversity, variables (25)
Local	yellow (2)	861	Local, knowledge, learning, co-management, users, institutional, different, groups, process, important, levels, communities, rules, conditions, government, community (16)
Coastal	green (3)	760	Coastal, fisheries, MPAs, human, marine, areas, natural, economic, example, research, species, impacts, beaches, large, beach (15)
Fishing	blue (4)	310	Fishing, time, people, success, fishers, MPA (6)
Governing	purple 5	112	Governing (1)

Concept ranking: * Rank 1 **Rank 2 ***Rank 3 ****Rank 4

The dominance of the overarching theme ‘social’, in the red bubble, is clear. This theme was generated from 1311 text elements (‘hits’ in the key for Figure 4 above, and summarised in Table 5 above) and comprises 25 concepts, including the top 4 concepts: ‘social’, ‘systems’, ‘management’, ‘governance’ as shown in Table 5.

Figure 5: Detail of the links between concepts that comprised the themes. This figure retains colour-coding of the theme dominance from Figure 4 (above). Here the larger grey dots also indicate the more dominant concepts and the grey lines represent the co-occurrence relationships between concepts.



The concept ‘systems’ is a strong hub within the theme connecting ‘social’, ‘change’, ‘need’, ‘governing (via ‘system’), ‘variables’ and ‘governance’ (via ‘complex’). A linked cluster extends from ‘social’ through ‘ecological’ to ‘understanding dynamics’ and on to ‘change’ also. These two clusters reflect SES interests and also reflect a conceptualisation of governance as fundamentally social. The only actor concept in this red portion of this theme is ‘stakeholders’.

The shared area between ‘social’ and the ‘coastal’ (green) theme concepts of ecology and environment are linked with ‘economic’ via ‘resilience’ as a ‘social’ concept. These linked concepts also indicate the strength of social-ecological systems research and associated this body of work more firmly with coastal zone research compared with fishing (lime green theme).

The shared area between the two top themes, ‘social’ and ‘local’, encompasses a little under half of each theme and includes two of the strongest concepts: ‘social’ and ‘management’. In this shared ‘social–local’ area the foundation concept ‘social’ connects stepwise to ‘local’ concepts ‘resource use’ to ‘rules’, ’information’ and ‘institutions’ in one direction. The links between ‘different knowledge’, ‘institutional’ and ‘adaptive’ in the lower section of the shared area (with ‘adaptive’ the strongest of these concepts) also reflect the social-ecological social processes interests. A small cluster around ‘management’, a weak hub connects the ‘social–local’ area to the fishing theme (lime green), but the connection is via a single lower-ranked concept. The only actor cohort in the shared area is ‘resource user’, closely associated with the weaker ‘management’ concept.

The second most dominant ‘local’ theme (orange) was generated from 861 text elements and 16 concepts. The foundation concept ‘local’ is a hub connecting ‘government’ and ‘co-management’ out alone in the ‘local’ area. Secondly, ‘local’ connects ‘communities’, ‘community’ and ‘fishers’ into a shared area with the ‘fishing’ theme (lime green), noting that these three concepts refer to actor cohorts, unlike most other concepts across any other theme. A third ‘spoke’ of the ‘local’ hub connects to the weaker ‘management’ links in the shared area (noted above). The fourth more closely connected ‘spoke’ links through ‘groups’ to the ‘different knowledge’ - ‘institutional’ – ‘adaptive’ links in the lower part of the shared area. There only actor cohort in the theme area (excluding the shared ‘social–local’ area) is ‘government’, but this is not well linked (single connection with ‘co-management’).

Finally, the central concept node ‘social’ also extends through ‘system’ to the ‘governing’ theme (bright blue). This theme, although lowest ranked, is quite distinct from the others and close analysis

of the text elements and sources for this theme were derived exclusively from Jentoft 2007 and Jentoft et al 2007.

Summary comments

The two dominant themes, ‘social’ and ‘local’ and the concept clusters in the shared ‘social’–‘local’ area are the strongest themes from marine governance literature. They reflect, and resonate with, the inductive qualitative analysis that identified the prominence of social-ecological systems research and the primary concerns of change and adaptation. The governance and management concerns of the social-ecological systems approach are clearly identified as social processes, reflecting the ontological assumption identified in the inductive reading discussed earlier. The clusters show both management and governance, but also learning and adaptation are central social processes. Clearly also, these are conceptualised as ‘local’ processes. Which actor cohorts comprise ‘local’ is less coherent or more scattered across the themes. The dominant participant concepts from the analysis are ‘users’ and ‘stakeholders’, again consistent with both the inductive and deductive analyses discussed above. While the concept of ‘stakeholders’ is related to governance and institutions, the concept of ‘users’ is more closely related to management. As noted above, three actor concepts (communities, community and fisher) appeared in the ‘fishing’ theme (lime green) but not substantially linked to the major theme social and local or strongest concepts. The disconnect between specific actor cohorts is intriguing and suggests that while governance and management processes have been reconceptualised as social, rather than policy or political, processes, who is involved is implied or assumed to be clear to the reader. Participation does not directly figure in this analysis. It is, however, implied the predominance of ‘social’ and presence of the social processes, i.e. social processes necessarily comprising people doing things together. The conceptualisation of participation then can be inferred from the social–local themes and the social processes present as the core concepts; that is, it is foundational and instrumental, necessary but not necessarily discussed directly.

Discussion

How is participation conceptualised in marine governance? (research question 1)

Four closely interrelated findings were common across the analyses conducted in the previous section (inductive–interpretive; deductive; automated conceptual analysis). Firstly, the link forged between social and ecological systems across the texts placed the social-ecological system as the central focus of human action, and research. Secondly, and extending from the first, is that the driving purpose of governance and policy is behaviour change and specifically adaptation to significant impending marine ecosystem and species changes. This is a significant shift in governance objective compared with, for example, maximising marine resource exploitation (e.g. see discussion in Jentoft et al 2007), and signals a more fundamental change in the politics of human–marine ecosystem interactions within the governance literature (*sensu* Bacchi 2012). Thirdly, is the reconceptualisation of policy and governance as primarily social processes, rather than political processes: social learning and knowledge building, for example, were key processes apparent in the material. This third finding extends logically from the previous two: if radical change is impending, the adaptation becomes the objective, and the research indicates governance and policy as key behaviour controls must drive that change. Fourthly, the strong link between social processes and the local context stood out strongly: participants were fishers, communities or marine stakeholders engaged directly in social processes, primarily at the local level. Participation did not emerge as a specific term used but is implicit. It is reasonable to infer from the findings that for social processes to take place, people must participate. Further, it can be inferred from the social–local connection in combination with the conceptualisation of governance and policy as social processes of social learning and knowledge sharing. The conceptualisation of participation, then, is implicit and foundational.

Taken together, this set of texts marks a paradigm shift to social-ecological systems thinking (Hughes et al 2005) that has grown from a confluence of three sources: commons research and theory (Dietz et al 2003; Ostrom 2007; Ostrom 2009); fisheries management challenges in the face of the failure of

major fisheries stocks (Gutierrez 2011; Hughes et al 2005; Jentoft 2007); and the development of ecology science into SES (Adger et al 2005; Armitage et al 2009; Christie 2004; Cinner 2012; Folke et al 2005). By paradigm, I refer here to a framework or system of shared assumptions, concepts, questions, methods, practices and values that structure inquiry (*sensu* Kuhn 1962). To better understand the dominant conceptualisation of participation, it is necessary to first to understand this underpinning paradigm. Lying at the heart of this paradigm is a profound concern about significant marine ecosystem changes and potential collapse under climate change, and the implications of these for human societies. Starting with the problem of resource failure and coming to terms with what 'sustainable management' actually means and how it can be achieved, the systems approach opened a new way of looking at the problem – from resources sector problems to linked social and ecological systems. The elements that comprise this paradigm are synthesised from the analysis above and described in Table 6 below. These provide ontological, epistemological and axiological foundations of the paradigm that alter how marine governance researchers and practitioners think about human uses of marine ecosystems, how they think about decision-making processes and institutions, and so also the conceptualisation of participation.

Table 6: The elements of the SES paradigm as they relate to participation. The paradigmatic statements were generated by synthesising the findings from the three analysis steps: inductive, deductive and automatic conceptual analysis.

	Paradigmatic statement	Paradigmatic element
1	Reality is created in dynamic systems: social and ecological, and coupled social-ecological.	ontology (nature of reality)
2	Ecological and social resilience are integrally and unavoidably interlinked.	ontology
3	Social and ecological systems are complex and share similar complexity traits: complexity, diversity; dynamics; vulnerability[8].	ontology
4	This means we live in uncertainty, we cannot predict precisely, we must work with and respond to information and knowledge as it is developed.	axiology (what is true because of the ontology)
5	The complexity of both social and ecological systems, and they complexity of how they are connected, means there are limits to governability (what can be governed, how it can be governed, and how much governing will be able to address the problem or interest at hand), and efforts must focus on the full range of social processes.	epistemology (nature of how we can know and do things)
6	Social systems are created through and comprise social processes and group dynamics. Individuals have agency within social processes, and work as groups through interactions, and through our agency we create systems and institutions. Change can only be created and/or secured through social/group processes (like trust, social capital, social learning).	ontology
7	Iterative, reflective processes of learning and responding are how we understand and operate. Learning through sharing different knowledges, and through engagement and dialogue is an essential social process for the dynamics of social-ecological systems (change; complexity). Institutions and social processes must continually change and have varying degrees of resistance, permeability, flexibility.	epistemology
8	Knowledge production must be participatory and communicative, driven by stakeholders, directly applicable to 'real world' problems, but also the arbiter of what is possible (ecological limits, ecological regime changes, planetary boundaries) – science is one form of knowledge creation (albeit a higher status), but in particular the	epistemology

[8] Vulnerability is also cast as resilience or adaptive capacity.

	knowledge from ecology sciences (including modelling) define, in this paradigm, the nature of reality (see opening statements). All forms of knowledge are equally essential in understanding the social-ecological system, responding to changes and to decisions to be made Knowledge and learning are social processes through which behaviour and practices will be modified. This is the foundation of governance.	
9	Governance is a dispersed activity comprising these social processes (above) that spread power across the social system in order to effect behaviour changes. This means: - governance comprises social learning, consensus, compromise, negotiation, trade-offs across social systems (including government) and so - governance must be, can only be, participatory.	axiology

The theory of change[9] underpinning the SES conceptualisation of governance, set out in Table 8 below, shows the prevalence of connective social processes in defining how governance happens: bridging organisations, social capital, participatory science and so on.

[9] A theory of change is the *if-then* causal logic that explains how actions will, or are plausibly likely to, lead to desired outcomes, e.g. see https://www.wkkf.org/resource-directory/resource/2006/02/wk-kellogg-foundation-logic-model-development-guide (accessed September 2018)

Table 7: Schematic of the theory of change that animates the SES paradigm

If we combine these elements, then …						… we will produce these effects		
Inputs	+	Actors	+	Processes	⇒	Outputs ⇒	Outcomes ⇒	Objectives
Knowledges		Citizen groups, interest groups (informal), representative groups (formal), scientists, resource users, facilitators, policy officers/actors [other terms from the set?]		Social learning and iterative decision-making		Social capital; Trust; Adaptive learning cultures; Culturally based monitoring and compliance (alongside legislative); Flexible responsive adaptive institutions; Inclusive decisions; New economic forms (livelihood); New forms of and rules for exploiting ecosystems.	Process legitimacy; Output legitimacy; Ecosystem balance/productivity, resilience or conservation of biodiversity; Social adaptation to ecosystem change	Human wellbeing; Ecosystem resilience and biodiversity
Science				Ecology and modelling sciences				
Interests, stakes, values				Social processes (contestation, resistance, deliberation, negotiation) Political coalitions				
Institutional forms				Bridging or boundary orgs and bridging processes; integrating processes (e.g. marine spatial planning)				

Legitimate decision-making is constituted through these social processes and pushes up through the social system to be ultimately captured in legislation, policy or a related instrument of authority. The SES theory of change constructed here describes the basis upon which management, in the first instance (Defeo et al 2003; Christie 2004), and later govern*ance* (Jentoft 2007; Jentoft et al 2007) is reconceptualised and positioned against the hierarchical govern*ment* paradigm (see statement 9, Table 6 above). Governance then becomes much more than a set of bureaucratic and institutional processes for legitimately allocating resources or exploitation rights. It becomes a broad-based definition of society as dynamic. It becomes a set of dynamic social processes in which policy actors and 'governors' are facilitators in a system where power is assumed to be dispersed across all social actors, because that is how society is constructed.

Underpinning the paradigm is the framing of governance and policy as social systems and social processes: social learning, deliberation and behaviour change. The notion of governance becomes all-encompassing, an expression of how social as well as ecological life is interconnected, interdependent and dynamic, but with top predators – or top power holders – also dependent on other in the system. The problems to be solved become adapting to new ecological conditions, including limits to what can be derived from the marine ecosystem, and in turn driving a need to develop new social and economic conditions. Decisions must be made in the context of uncertainty, not only the familiar uncertainty of traditional scientific methods, but also a kind of radical uncertainty based on unknowable emerging reality (complexity and dynamics). Decision-making processes must be made by drawing on a range of knowledges and perspectives and must also directly and immediately change the behaviour of people in the social-ecological system. They must be participatory, systems based, and social-learning based. They must build the social connective tissues such as social capital and trust. The resolutions and solutions then depend upon direct and ongoing participation of all social actors.

Governance becomes more than a set of bureaucratic and institutional processes for legitimately allocating resources or exploitation rights. Governance becomes a broad-based definition of society

as a set of social dynamic processes in which policy actors and ‘governors’ are facilitators in a system where power is dispersed across all social actors not by right but because that is how society works. A diversity of flexible forms of participation is fundamental in response to the interconnectedness, diversity, flexibility, complexity and dynamism of social-ecological systems. Effective governance, i.e. governance that can positively influence the adaptive capacity of communities and the resilience of ecosystems in the face of radical change, requires the introduction of civil society governance networked to corporate/private or market governance and hierarchical top-down govern*ment*. The state, formerly the central legitimate actor in rule-setting, monitoring and compliance, becomes one of a number of influencing actors. Power is dispersed across the social or governance system, and the policy process can only be networked, negotiated, iterative and emergent. The conceptualisation of participation is implicit in this framing: participation is an instrumental dimension of the social processes of governance as a reflection of how the social-ecological system works. Participation is how the social processes work: it is foundational, essential and instrumental. This instrumentalism is ontological in that it defines the nature of how things are: participatory forms must be implemented because that is how the social-ecological world works; to effect the required change (to reflect the social-ecological interdependencies) participatory forms of governance *and* management must be implemented. It is also aspirational and positively transformative. From this analysis, the axioms of the SES paradigmatic conceptualisation of participation appear as follows in Table 9.

Table 8: Axioms which constitute the dominant conceptualisation of participation influencing the marine governance literature

Axiom	Explanation
Participation is ontological (Axiom 1)	Participation is *the* fundamental social process. Participation produces the social resources (such as social capital and trust, norms of sustainability and resource use and social sanctions) that underpin governance of marine social-ecological systems. This means that governance institutions must be and can only be participatory because change can only be created through social/group processes. Representative mechanisms disrupt the operation of the social processes. Institutional design must be predicated on social processes such as coalition building, consensus, compromise, negotiation – these are the central social decision-making mechanisms.
Institutional power is dispersed (Axiom 2)	Power is already dispersed across social networks and so governance structures must connect corporate/private/market governance, hierarchical top-down govern*ment* (bureaucracy) and civil (community) domains. The policy process (management) can only be negotiated and iterative because all actors hold power. This also means that the state (bureaucracy) formerly the central power holder in decision-making, rule-setting, monitoring and compliance, becomes one of a number of influential actors for these activities.
Governance is social (Axiom 3)	Institutional design must enable social processes such as knowledge co-production, social learning, consensus, compromise and negotiation as the decision-making mechanisms that reflect dispersed power and deliver the social resources that underpin the functioning of the social-ecological system, and will lead to social behaviour change and control, and the allocation of resources.

Under this social-ecological systems paradigm. then, this conceptualisation of participation becomes a norm. A social norm comprises a set of rules and standards of behaviour that reflect shared values and shared assumptions about what is good and right, what should and should not be done or said (Elster 1989; Lapinski and Rimal 2015). Norms, therefore, create social order but can also limit and constrain what can be said, thought or done, and work against groups seeing old problems in new ways (Lapinksi and Rimal 2015). The SES participation norm reflects the precepts of participatory democracy theories: that direct participation is the privileged means through which agency can be experienced; agency is experienced through social processes of deliberation; and that participatory forms will address the shortcomings or failures of the representative state mode of governance and disperse decision-making power across the social system. Given this, the participation practices and

processes within marine governance are likely to be vulnerable to the challenges inherent in participatory democracy theories and practices: the problem of scalability beyond the local; the problem of exclusion and the questions about who decides who's in and who's out; and a reliance on representative mechanisms treated pragmatically rather than as a linked and significant power relation.

Further, the SES ontological instrumentalism also closely aligns with the technocratic logic of participation identified in the more recent empirical literature as discussed in my Introduction (pg. 17). The justification for participatory processes under the technocratic logic resonates strongly with those of the SES ontological logic of participation: increasing legitimacy through involvement of 'interested publics'; information sharing so 'interested publics' can understand the decision-making compromises of the state; arguments for empowerment through having a say or being heard regardless of the impact upon actual decision making (Weber 2018; Flannery et al 2018). It may be at this point of tension where failure of the participatory practices occurs. If so, citizen disillusionment and distrust in marine governance may be explained by the tensions between the technocratic and SES ontological logics and their divergent drivers – consolidating power in the former and dispersing power in the latter.

Finally, the focus on 'stakeholders' and a broad general 'interested publics' category, in the material analysed above, is a strong clue that in practice the stakeholder resolution (discussed in Chapter 3) is also in play within marine governance. If so, then it follows that under the influence of the norm of participation, the core role of representation in the facilitation of political participation is likely to be overlooked in marine governance. This proposition will be explored further in the case studies in Chapters 6 and 7. Now, however, I turn to applying the lens of participation–representation to the SES axioms to explore the extent to which it assists in problematising participation and the link with representation any further.

Applying the lens of participation–representation: authorisation; dissent and exit and accountability (research question 2)

The lens of participation–representation, established in Chapter 3, comprises three conditions that help identify, explain and analyse how the inextricable connection between participation and representation is constituted. The conditions are authorisation, dissent and exit, and accountability and are discussed in detail in Chapter 3 (see pg. 69) and summarised in Table 9.

Table 9: Participation–representation lens

Condition	Explanation
Authorisation	The authorisation condition is the ability of the represented to 'appoint' and in some way legitimise the representative in a way that recognises the active relationship between them.
Dissent and exit	The dissent and exit condition refers to the capacity of or opportunity for the represented party (group or individual) to dispute, change or withdraw from the representative relationship. This capacity is the sign that the individual or group to be represented is free from coercion, and therefore that the representative relationship is facilitating agency by agreement.
Accountability	In this lens, accountability encompasses the ability of the represented to take responsibility or be held responsible for the actions of the representative, i.e. to engage in some way in the actions of the representative.

The conditions are conceptual and practical component parts that address the power relations inherent in the inextricable connection between participation and representation. It is these conditions that explain the extent to which 'the citizen's' political participation is facilitated by the representative mechanisms that are inevitably in play. Therefore, the conditions also provide insight into the democratic legitimacy of whatever is being analysed. In this section, I have applied this lens to the SES participation norm to probe how throughput legitimacy and agency is likely to be addressed in the SES paradigm. The analyses in this chapter are purposefully focused on the conceptual and so do not discuss specific material practices or empirical cases. Accordingly, in this section I have

provided exploratory inferential analyses of the implications of the three conditions for the SES conceptualisation of participation established above.

Authorisation

Under the SES paradigm, participation of people is assumed to be direct and deliberative (Axiom 1 *participation is ontological*; Axiom 3 *governance is social*). Change and governance take place through direct involvement in social processes, not formally representative processes, institutions or relationships (Axiom 2 *dispersed power*). This means that, conceptually, authorisation of any representative institution, process or relationship does not need to be overtly addressed under this paradigm. In practice, if the representative mechanisms are utilised pragmatically to deliver the participatory precepts (as per the stakeholder proxy resolution identified in Chapter 3), authorisation may be assumed to be either residing within the formally representative mechanisms of the stakeholder resolution or residing with the stakeholder selection processes conducted by participation professionals.

Dissent and exit

Firstly, under the influence of the precept that participation is ontological (Axiom 1), the dissent and exit condition is likely to hold limited significance as an indicator of democratic legitimacy. This is because direct self-presentation is the privileged conceptualisation of participation, and implicit within this conceptualisation is that the self-representing citizen is, by definition, free from coercion.

Secondly, under the SES axioms the representative relationship is absent – or at best an overshadowed and instrumental necessity, but not of conceptual significance. If so, it follows that presence or absence of the dissent and exit condition within instrumental representative mechanisms at play would similarly lack conceptual significance under this paradigm. This would mean, then, that at least in principle, representatives could be taken as an instrumental proxy for a perceived constituency regardless of the opportunity to dissent or change the terms of the representative relationship between representatives and the broader constituency. Furthermore, it can be inferred

from Axiom 3 (governance is social) that dissent from structures, policies or other content is likely to be treated as a systems issue that requires incorporation and resolution through social processes of knowledge co-production, social learning and behaviour change and adaptation. The objective of adaptation and living within ecosystem boundaries within the SES paradigm is assumed and debate or dissent will be incorporated within the governance system as a problem solvable through deliberation and social learning.

Accountability

Once again, given the conceptual absence of representative mechanisms or relationships, it can be inferred that the accountability condition is not relevant under the SES axioms. This is because people are directly involved in the governance processes, and these are social processes of knowledge generation, learning, deliberation and adaptation – the opportunity to take responsibility for the governance actions and decision is direct and unmediated. Once again, if the pragmatic reliance on formally representative practices is in play in marine governance, it must be inferred that accountability is dealt with via the formally representative system that produces ‘stakeholders’. Alternative forms of accountability for those not involved in the formal representative system are not addressed.

Synthesis

The analysis here is necessarily inferential, given the axioms are specifically designed to parse the SES paradigm to explain the dominant conceptualisation of participation. Nevertheless, this analysis indicates the conditions for testing the democratic legitimacy of the participatory forms are unlikely to be addressed under the SES paradigm. Rather, viewed through the lens of participation–representation, it appears that the democratic legitimacy of participatory forms under the current SES paradigm is settled under the axiom that participation is ontological, and so also that decision-making and governance are directly participatory and therefore also legitimate. The pragmatic reliance on representative resolutions to facilitating participation was also inferred for each condition. This

reliance has a set of challenges established in Chapter 3. Firstly, the chain of representative relationships and the trustee mode that defines the representative relationship implies there will always be a 'represented' despite the privileging of participation. In turn, this raises questions about the extent to which that represented person or group can experience political agency if the conditions are unclear and the representative relationship is not addressed overtly. Secondly, given the direct and deliberative theory of change underpinning the social processes, how would the 'represented' person or group experience the transformations and agency if their participation is mediated through a representative. Thirdly, if the representative mechanisms are pragmatic resolutions rather than explicitly authorised by potential 'represented' people and groups, who is choosing, selecting, deciding and ultimately authorising the participation of some and the exclusion of others. If this is not potentially represented people or groups, it would be difficult to argue the participatory processes are democratically legitimate.

Given the axioms of this paradigm were elicited from highly influencing research within marine governance, I contend that these same assumptions are likely to be determining the assessment of the democratic legitimacy of diverse, self-organising and direct participatory institutions under the SES paradigm. Alternatively, it may be the case that implicit within the SES paradigm is an alternative account of legitimacy to the democratic account established in Chapter 3. Identifying such an alternative account is a substantial undertaking and so lies outside the scope of this project but is an important direction for future research. Finally, I suggest that the methods innovations introduced here have provided an empirical basis for the findings and strengthened the applicability of my findings to more than one context. This means that the findings are worth further empirical analysis in specific contexts.

Conclusions

In this chapter, I have established that across the body of marine governance literature the social-ecological systems paradigm has become the dominant framing for how we think about change in the

governance of the marine environment. I have shown that the SES paradigm also implicitly changes how we think about participation. The social-ecological systems approach is built on the notion that human systems are foremost social processes, and the research has continued to demonstrate success factors for positive adaptive social processes such as social learning, deliberation, trust and social capital. The paradigm incorporates both marine governance research and practice and also refers to all human societies, regardless of differences in political, cultural or ecological differences. The conceptualisation of participation is implicit as a powerful norm that is ontologically instrumental. This means that participation is effective and necessary – even foundational – as an inevitable and productive condition of how the world is, but it is not conceptualised as a political right per se. This also means that the logical approach to policy and governance under the SES paradigm is directly participatory. The SES norm goes further than political theories of participation as it incorporates empirical research on social adaptation and behaviour modification extending from the social-ecological systems research agenda for resources management and ecosystem adaptation.

Secondly, my examination using the lens showed that the SES marine governance norm privileges participation and reflects participatory democracy theory. Consequently, the power relations between participation and representation are not directly addressed. Importantly, how legitimacy is addressed is not clear. That is, the processes of authorisation, dissent and exit and accountability are not clear but rather are absorbed by the precept that participation should be encompassing and direct, with the implication that they should not be mediated by representative mechanisms. However, it is likely that in attempting to deal with the scale and exclusion problems of participatory democracy theories, marine governance processes are likely to retain a pragmatic dependency of representative mechanisms, despite the precepts of the SES paradigm, like the participatory democracy theory ignoring them as not appropriate to governance as a direct social endeavour.

These findings reflect those of the participatory democracy theory and practices identified in the previous chapter: the denial of representative political processes as sources of legitimacy and political agency; the inability to scale to large, diverse and plural societies – or in this case, social-ecological

systems; and the problem of exclusion inherent in participation. The SES paradigm has absorbed the precepts and incorporated the empirical research of behaviour modification towards an objective set by resources sciences (e.g. collapsing stocks, species redistribution) or conservation (biodiversity and survival of productive ecosystems). SES is politically normative with a distinct perspective on political relations, but this is not formally articulated. Furthermore, the SES paradigm appears to be largely disconnected from the critiques of participatory democracy theory; rather, the precepts of direct democracy and the implications for the shift to network governance are uncritically adopted. Under the SES paradigm, the remit of marine governance stretches beyond policy to include social and economic goals and even the wellbeing and future viability of 'communities' and human society. However, legitimacy is not constituted according to the democratic principles of participation established in Chapter 3 (*sensu* Pitkin 1967 and Scharpf–Schmidt). If governance has become a set of social processes stripped of the political and institutional drivers of the existing system, and participation has become more 'how the world works' than a foundational principle for a democratic polity, how then is legitimacy demonstrated or enacted? As noted above, fully addressing this question and articulating the political theory of the SES paradigm both lie outside the scope of this particular research but are important directions for future research.

Further, I suggest that the axioms of the SES paradigm and the implicit conceptualisation of participation push participation from 'input' legitimacy, e.g. consultation in the Scharpf–Schmidt model, to throughput legitimacy, i.e. participation as the governance process itself. If so, then the problem of exclusion in a more populous polity, as opposed to the 'local' driver in the SES paradigm, will become a more pressing problem of legitimacy in larger, more populous democratic contexts. Further, if the stakeholder resolution or similar representative mechanisms are at play in addressing this problem in the applied context, then the exclusions and the lack of clear authorisation, dissent and exit, and accountability resolutions inherent in the SES paradigm will undermine the legitimacy of an initiative or institution built on the axioms of the SES paradigm. If so, this would also mean that the initiatives will fail to engage the desired constituencies in the processes of change and adaptation to the changing marine conditions that are at the core of the SES approach to marine governance. In the

following two chapters I turn analysing the presence of the SES marine participatory norm in the applied context. In these chapters, I also test the utility of the lens for explaining the limits of participatory marine governance. The two case studies allow us to test how the lens works in practice, as well as providing insights for building SES participatory governance theory.

Chapter 5.
Case study methods and materials – testing the conceptual in the applied context

In this methods chapter, I set out the details of the third step in the overarching research design for the problematisation of participation: two case studies from the applied context. To recap, in Chapters 3 and 4, I examined conceptualisations of participation in the theoretical literature and in the empirical marine governance literature. I now turn to examining participation in the applied context to understand if conceptual findings have relevance for and can explain of participatory marine governance. Before I turn to the case studies, in this chapter I describe the details of the methods used in the next two chapters

On the basis of my findings from Chapters 3 and 4, I contend that participatory governance practices in the marine context are likely to be subject to a lack of democratic legitimacy as a consequence of the influence of the SES norm of participation. To examine this proposition, I used the case study method to examine two instances of participatory governance in the marine context. In Chapter 6 I set out my examination of the case of the southwest Bay of Fundy Marine Advisory Committee in New Brunswick, Canada, known as the MAC. The MAC was a purposeful effort at introducing integrated management for the multi-use and high conservation value southwest area of the Bay of Fundy, in New Brunswick. In Chapter 7, I present my examination of the case of the West Coast Community Aquaculture Forum, in Tasmania, Australia. The Forum was an experimental partnership between the local community and the aquaculture industry for governance of social and economic aspects of the shared use of Macquarie Harbour – uses that lay outside the legislative and regulatory framework for salmon aquaculture in the Harbour. The guiding questions for both the case studies were: *(1a) How did the dominant conceptualisation of participation influence the structure and activities of the participatory initiative (if at all)? (i.e. the social-ecological systems participation norm as per Chapter*

4) and *(2c) What does application of the participation-representation lens explain, if anything, about the dominant conceptualisation of participation in the applied context?*

To address these questions, I conducted a three-step examination of each case study. In brief, the first step was an in-depth inductive analysis of each initiative as represented through a) participants recounting their participation through semi-structured interviews and b) documentation from the initiative (terms of reference, minutes, newsletters and reports). From this work, I generated the materials for deductive analysis using the findings from Chapters 3 and 4. In the second step, I brought the analytical frame of the participation norm (the three axioms) to the analysis of the inductively generated materials. In the third step, I analysed the presence or absence of the three conditions of the participation–representation lens (authorisation, dissent and exit, accountability). This combination of inductive and two steps of deductive analysis enabled me to consider participation in participants' own terms and then problematise those experiences and practices of participation using the analytical frames from my previous findings (Bacchi 2012; Fereday and Muir-Cochrane 2006). In the following section I describe the basis for selecting case studies and methods for data collection and data analysis.

Case study selection

I used the case study as an appropriate method to explore how people who were actually involved in participatory initiatives thought about and acted in constructing and operationalising institutional efforts at participatory marine governance. The purpose of my case studies was to hone in on experiences of civil or 'community' participation in the governance process to extend the problematisation process. To do this I selected two cases as exemplars, or instructive cases, that enabled me to explore how participatory initiatives were designed and examine the intentions and institutional rules and practices (Stake 2013). For the findings from the case studies to be instructive, I needed cases that were sufficiently similar in context, purpose and scope to enable me to account for the particularities and differences that are inevitable in case studies (Stake 2013).

I decided at the outset that an Australian case study was appropriate because I am an Australian researcher and my research centre has a particular interest in Australian marine governance. Further, I required sufficient similarity between the cases to ensure the differences or particularities could be accounted for in the analysis of the findings The four criteria I set for case study selection were as follows:

- An initiative or effort at shared governance of the marine ecosystem, or key aspects of it, with a commitment to citizen participation in the governance initiative. This was the essential criteria as it was the core research focus;

- In addition, an initiative that had been operating for more than three years to ensure establishment processes had been consolidated and the initiative had at least two years of consistent operation for analysis.

- Multiple-use marine ecosystem. The multiple-use criterion was set to ensure the initiative was dealing with a diversity of interests and preferences, reflecting the key challenges of democratic societies;

- Australian or a marine nation with a comparable cultural context and political structure, with a preference for Canada predominantly English speaking, federal constitutional monarchies with three levels of parliamentary government and comparable bureaucratic systems.

Early in my research planning, I established that Australia and Canada shared similar experiences of increasing industrialisation of marine industries in multiple-use marine ecosystems. Further, these marine nations share cultural histories, have comparable three-level political systems and are mature democracies (Sharman 1990). This ‘similar systems’ approach to the choice of location of the case studies enabled me to focus on the processes of participation while taking into account the influences of the broader institutional influences. Specifically, in both cases I was able to focus on how sub-national regions (states or provinces) dealt with changes in marine resource management and how

communities were formally engaged in the processes through participatory practices. While the sites were similar, there were also differences between the cases, particularly in relation to First Nation access to the marine system.

The selection of case studies for similar cultural, historical, legislative and political systems brings a potential limitation with respect to generalisability to other democratic nations with different such systems. I acknowledge this limitation, and also decided that for this first step in examining and problematising participation, it was necessary in this thesis to control for as many cultural, historical and institutional factors as might be possible in case study analysis. The selection of case studies from Australia and Canada provided sufficient similarity and sufficient differences that could be accounted for within the scope of this doctoral project. To mitigate this limitation to some degree, the content analysis was built from a broad range of empirical material from a broad range of cultural and political systems and across marine activities, as discussed in Chapter 2 Research Design (see pg. 28). Further, the focus of my research has been the local-level institutions of direct participation and so the findings are likely to have some application in any context with a commitment to democratic process and the participation of community members and citizens to address the governance of share marine ecosystem.

I reviewed grey literature on participatory initiatives in Australia and Canada and while doing so I also learnt about the Southwest New Brunswick Marine Advisory Committee (MAC) in east coast Canada from a visiting Canadian researcher, Dr Rob Stephenson. On Rob's advice, I contacted MAC participants and garnered their interest in the research aims. Given the participants were interested, I settled on the southwest Bay of Fundy, New Brunswick, Canada, as my first case study. For my second case study I settled on the West Coast Community Aquaculture Forum centred on Macquarie Harbour in Tasmania primarily because of a number of similarities between New Brunswick and Tasmania that met the case study criteria I had set (as dot pointed above). The similarities between the two cases were:

- comparable socio-economic and demographic profiles;
- highly valued waterway for both commercial, cultural and conservation values;
- the growth of salmon aquaculture as an influencing factor in the drive for participatory governance.

Alongside these similarities, the study site and participants were easily accessible to me and I had some connection with the Forum in the early months of its establishment when I was working as an independent consultant (see Appendix 5 for details).

As the Forum did not have a web presence, I contacted an aquaculture industry member and asked them to contact the Forum Chair on my behalf and request permission to share the Chair's email contact. The aquaculture representative checked with the Chair and gave me verbal assurance that I had permission to email the Chair. I did so with a request for her to raise the prospect of the Forum as a case study for this research with Forum members. I included the research information and consent form for the Forum members' consideration. I attended a Forum meeting in August 2018 to answer questions about the research project, and the Forum members reiterated their interest in the research and willingness to participate in the research. This was recorded in the Forum minutes. It must also be noted that in 2013 I had previous experience with the Forum and many of the Forum members, including aquaculture company representatives. As a professional consultant, I assisted community members and the aquaculture company representatives to set up the Forum in 2013. My specific role and responsibilities in that process are detailed in Appendix 5. Although I had no connection with the Forum between 2014 and 2018 when the fieldwork was conducted, I was aware that it had continued. It was this knowledge and previous connection with the Forum that led me to select this as a potential case study. This previous contact with the Forum members presents the potential for bias in my analysis because I had previous knowledge of the initial intentions for the Forum and previous connection and knowledge with most of the participants. It is not possible to mitigate for this; however, this inductive–deductive design provided some level of accounting for the potential bias. Additionally,

using the same coding rules for both case studies also provided a degree of accounting for the potential bias.

Materials

Documentation

In both cases, permission was obtained by email from members to collect and analyse the initiative's documentation. MAC documentation was collected in electronic format from two civil servants who had been involved in the administration of the MAC. MAC documentation comprised one report (2009), 25 sets of minutes from 2010 to 2017 and one terms of reference document and covered the years from the 2009 until the final meeting in August 2017. Forum documentation comprised 13 sets of minutes from 2013 until 2018, and two versions of terms of reference (2014 and 2018). The documents covered the years of operation from early 2013 until the time of the research in August 2018. They were collected in electronic format from three Forum members who had previously held administrative roles, including the Chair at the time of the research (2018). In both cases after an initial familiarisation reading, I coded the material inductively using NVIVO 10 (for Mac) software to gain a picture of the concerns, discussion points, interests, meeting processes and decision-making processes. The details of the coding and analysis are laid out in the section below (pg. 125).

Interviews

Sampling strategy

Interviewees were identified through a purposive sampling strategy for key informants for three cohorts: people who were involved in the case study initiative as members; Indigenous nation leaders; and people who live in the area with work- or lifestyle-related associations with the water but who were not members of the case study initiative.

Working with key informants is an established technique to gather rich information (Fujii 2018; Qu and Dumay 2011) and so was selected as an appropriate means to gather data on perceptions and delve into the experience and recollections of the initiative members. I selected members of the case study initiative as key informants because understanding the aspirations, intentions, processes and practices of the case study initiative through the experiences of people who were involved was a primary source for generating the data required for the analysis as per the research design (see Chapter 2, pg. 34).

Once I commenced the interviews in my first case study fieldwork, I identified a sense of being inside an initiative 'bubble' as I had connected with a strong core of members who had been closely involved with the initiative. I was concerned this may introduce a risk of subtle unintentional bias. To address this, I decided to conduct a small set of interviews with non-member residents. I chose to include a small cohort of people who live in the area with work- or lifestyle-related associations with the water but who were not members of the initiative to provide alternative perspectives on the engagement between the initiative and members of the broader community.

Recruitment

I generated a list of potential interviewees from the publicly available information about each initiative and publicly available information on key stakeholder groups likely to have had an interest in each initiative. Table 10 below shows the sample for each case study.

Table 10: Interview sample

Cohort	MAC, SW Bay of Fundy, Canada Number of people interviewed	Forum, Macquarie Harbour, Australia Number of people interviewed
Participants of the initiative	13	10

Non-participant informants	14	9

For the Canadian case study, I worked with a locally based case study mentor, Dr Rob Stephenson, who introduced my research to the members of the initiative by emailing a copy of the research information, a consent form and a short covering email. Following this introductory step, I emailed each person on the list and obtained agreement for interview from 13 people.

The Peskotomuhkati are the indigenous Nation of the southwest region of the Bay of Fundy[10]. As is appropriate when engaging with the First Nations in a Canadian context, I contacted the Chief of the Peskotomuhkati to request an interview. After an initial in-person meeting to discuss the research concerns, the Chief decided he was willing to discuss his perspective on the existing approaches to integrated marine with me, and for this discussion to be included in my research analysis. While it must be noted that First Nations people from other areas were included on the MAC membership list, I made the decision not to interview those First Nations members out of respect for the Chief's position, and on the basis of his experience with the MAC membership process. For community members who were not members of the initiative, I conducted a web search for associations and groups that were likely to have connection with the southwest Bay of Fundy or the MAC. I directly contacted organisations via email with the research information and consent forms. I also engaged non-members directly through social discussions that led to interviewee interest in participating in the research. In total, 14 non-members agreed to an interview from these recruitment steps. Twenty-seven interviews were conducted in total in September 2017.

For the Australian case study, I contacted one of the aquaculture companies involved in the initiative and requested permission to proceed with contacting the Chairperson of the initiative because it had no web presence. The aquaculture representative checked with the Chairperson and gave me verbal

[10] The Peskotomuhkati territory includes the watershed of the Skudic (St Croix) River and Passamquoddy Bay.

assurance that I had permission to email the Chairperson. I emailed the Chair with a request for her to raise the prospect of the Forum as a case study for this research with Forum members. I included the research information and consent form for the Forum members' consideration. I was advised by email that I had permission to proceed. I attended a Forum meeting in August 2017 and Forum members reiterated their interest in the research and their willingness to participate in the research, and this was recorded in the Forum minutes. I contacted each Forum member by email with an invitation to participate in an interview. Ten people responded, and ten interviews were conducted with Forum members. I conducted a web search for Aboriginal groups with Country connection to the area, and in-person advice was sought from an Elder on potential interest in the study research. As a result of this engagement, I was invited to keep the Elder informed of the research for future discussion.

For community members who were not members of the initiative, I generated a list of potential interviewees from the Forum minutes and publicly available information on key stakeholders likely to have had an interest in the Forum. I emailed each person on the list and obtained agreement for interview from four people in official roles with specific formal interests in the case study area. I subsequently interviewed each of them. Each of these respondents had formal permission to speak on behalf of their organisational interests, and the specific limits to confidentiality and anonymity were discussed. Each respondent was willing to participate with full awareness of the limits to anonymity and confidentiality, and each was afforded the opportunity to review the transcripts to manage the limits of anonymity and confidentiality.

Non-member interviewees were recruited at a public community event with the permission of the event organisers. I set up a small stall branded to confirm the research as University sponsored, and with the information and consent forms available. From here, interested passers-by were invited to talk with me for up to ten minutes (or as long as they wished) in an audio-recorded semi-structured interview. Five interviews were conducted from this process. In total, 19 interviews were conducted.

Interview design

The semi-structured interview protocol comprised six open questions designed to gather the perceptions of key informants and elicit rich detail of the operations, effects and experiences of the Forum as follows:

1. Interviewee's connection with marine environment: personal or professional connection with the case study waterway
2. Interviewee's particular interests and/or concerns with respect to the case study waterway
3. Interviewee's connection with the case study initiative
4. Interviewee's perspective on achievements and strengths of the case study initiative
5. Interviewee's perspective on challenges and limits of the case study initiative
6. Any other comments.

The first two interview questions were designed to open the discussion, to build rapport and to understand the informants' connection and core concerns with respect to the waterway. Questions 3–5 were designed to lead outwards from the respondents' connection and core concerns to consideration of the case study processes. At each question, I asked follow-up questions to encourage people to expand on topics, including asking for examples to illustrate their point. The final question was designed to signal the end of the interview, and to enable people to tell me anything they felt was relevant with respect to governance of the waterway or the case study initiative.

Coding and analysis

The following sections describe the steps I took to analyse the documentation and interview material and produce my findings as set out in the case study chapters (Chapters 6 and 7):

- Step 1: organising the material to generate a rich and coherent picture of the initiative (inductive coding);
- Step 2: interpretively analysing the conceptualisations of participation within the picture material (from Step 1) (deductive coding); and
- Step 3: interpretively analysing the presence or absence of the conditions (authorisation; dissent and exit; accountability) from the picture material (from step 1) (deductive coding).

Step 1: Organising the material to generate a picture of each initiative

In this first step I intentionally came to both the documentation and interview material to understand how the initiative operated and, drawing on Geertz (2008), to generate a rich and coherent understanding of the case study initiative.

A coherent and rounded picture of the initiative was essential to the research because it formed the material, which I then analysed for the conceptualisations of participation and analysed for the connections between the conceptualisation of participation and the presence of absence of the conditions. I took the minutes and the interview material to represent how the initiative operated and what people held to be significant about how the initiative operated (practices, processes and activities). I took the terms of reference documents to represent the institutional structure and rules of each initiative. The coding work for this step was conducted to organise the material and enable me to infer the links among the coded material and so generate the coherent picture of the initiative as reflected in the minutes and terms of reference (documentation) and experiences of the initiatives reported to me through interview. I used NVIVO for MAC 10 for this coding. A selection of verbatim statements from the interview transcripts are included in the first analysis section in each case study chapter, as quotes to provide a sense of the discussions in the words of the interviewees themselves. Each quote is referenced – the quote references refer to the sample cohorts and actor type as set out in Table 11.

Table 11: Explanation of the quote references used in the case study section.

Cohort as reference prefix	+	Actor Type reference
M - refers to a member of the initiative		COMMUNITY refers to people who were members of the community with no formal alliance with a sector or representative body
N- refers to a person who was not a member of the initiative		PROFESSIONAL refers to people who held formal professional roles with a sector or a representative body
e.g. M-GOVT refers to a civil servant who was a member of the case study initiative. N-GOVT refers to a civil servant who was *not* a member of the case study initiative.		GOVT refers to people who were members of the civil or public service, i.e. the bureaucracy with a portfolio responsibility related to the southwest Bay of Fundy marine ecosystem and coastal zone
		INDUSTRY refers to people who were employed in a commercial marine-related company

Documentation

After an initial familiarisation reading, I used the codes set out in Table 12 to organise the material into topics and concerns; membership rules and processes; meeting processes; actions conducted under the umbrella of the initiative; processes or practices that made connections between the initiative members and the broader community; and decision-making processes. The codes and coding rules for this step are set out in Table 12 below.

Table 12: Coding rules for analysis of the documentation from each case study. In both cases, the material coded comprised text from minutes, reports and terms of reference documents.

Code (deductive)	Explanation/rule - Text that …
Actions completed	… indicated that an action planned (evidenced in previous minutes) had been completed.
Communications	… referred to intended or actual communication with non-members about any aspect of the initiative. Includes intended messages, forms of communications and responsibility for communications with non-members
Community member concerns and questions	… reflected any concerns held by community members that the text clearly shows the community member or members would like addressed through the initiative or questions put to industry members or government decision-makers by community members that pertained to governing the multiple uses of the marine and/or coastal environments and/or that pertained to other topics deemed by the members to be relevant to the objectives of the initiative. The text must include evidence that other members of the initiative deemed the topic important and this can include listing as an agenda item as evidence that the membership had deemed the topic relevant to the business of the initiative.
Events	… described intentions, planning, implementation or evaluation of events that were intended to connect the broader community with the work and objectives of the initiative
Information provision	… described any instances of any member providing information to other members on issues that pertained to governing the multiple uses of the marine and/or coastal environments
Membership	… described any rules, decisions, principles, definitions or processes that pertained to membership of the initiative
Process	… described any rules, decisions, principles, definitions or processes that explain or describe how the initiative should operate
Purpose	… described the intended objectives, processes and activities for the initiative Text that described why the intended objectives, processes and activities were significant to members and/or why the intended objectives, processes and activities were held to be important for the broader community.

Interview material

Following Fuji 2018 and Yanow 2007, I examined how participants described the initiative through interviews. I manually transcribed each of the interviews verbatim and each person interviewed was invited to review the transcript of their interview. Using NVIVO 10 for MAC, I then coded each interview transcript in two rounds as set out in Table 13.

Table 13: Coding frame for two rounds of inductive coding of the case study interview material. For every instance of coding, codes were applied to groups of sentences or single

Interview questions	Round 1 Organising codes Explanation/rules	Round 2 Theming codes	Explanation/rule Text in which an interviewee described…
Please tell me about your connection with the marine environment: personal or professional connection with the case study waterway.	Interests and values Where a person described personal or professional use, attachment or what the waterway means to the respondent	Economic	… professional interests in marine-related industries but were not on water, e.g. seafood processing, transport
		Commercial marine	… professional interests in on-water marine-related industries of any form or scale, e.g. individual fishing quota or commercial-scale fishing
		Recreational	… personal non-commercial use of the waterway or coastal zone as having significance or meaning for them
		Lifestyle and amenity	… personal attachment to the coastal zone and/or waterway as part of their quality of living and sense of identity and/or as having significance or meaning for them
		Environmental	… professional or personal interests in the conservation or environmental values of the coastal zone and/or waterway
		Government	… professional responsibilities in any aspect of the marine and coastal environment and/or living marine resources (flora and/or fauna) as a government officer from any level of government
		Science	… professional responsibilities in any aspect of the marine and coastal environment and/or living marine resources (flora and/or fauna) as an employee of an academic and/or research organisation
What are your particular interests and concerns with respect to	Concerns or issues of interest Where a person described personal or professional use,	Positive community impact of marine and coastal activities	… any topic that related to any positive economic, cultural, lifestyle developments and/or changes and/or opportunities as a result of marine-based activities

the case study waterway?	attachment or what the waterway means to the respondent	Ensuring local level economic benefits from marine and coastal activities	… any topic that related to distribution of economic benefits from the exploitation or use of marine and/or coastal ecosystems at the local level
		Human uses on marine environment (negative impacts)	… any concern that current and/or increasing and/or greater diversity of human uses of marine and/or coastal ecosystems are impacting on or will negatively impact on the ecosystem functioning of marine and/or coastal ecosystems
		Marine debris	… a concern about waste and rubbish from marine-based human activities being left in marine and/or coastal ecosystems
		Negative impact of salmon aquaculture operations on marine ecosystem	… a concern that current and/or increasing activities related to salmon aquaculture that are impacting on or will negatively impact on the ecosystem functioning of marine and coastal ecosystems
		Negative community impacts of marine activities	… any topic related to any negative economic, cultural, lifestyle developments as a result of marine-based activities
Please tell me about your connection with the case study initiative.	Involvement Where a person described their understanding of their role or position in the initiative (if involved) or any other role or position with respect to the initiative (e.g. marine scientist who was aware of it but not involved)	Member	… a person or group that was currently or had been a member of the case study initiative
		Non-member but aware	… a person or group that had not ever been a member of the case study initiative but was aware of the initiative either through a member or as a consequence of their professional role
		Non-member no awareness	… a person or group that had not ever been a member of the case study initiative and had not ever heard of the initiative

Your perspective on achievements and strengths of the case study initiative	Strengths Where a person described factors, experiences or characteristics of the initiative that influenced the process or the outcomes of the initiative positively	Having people at the table who were willing to engage in dialogue	… any positive impacts of changes for the initiative of members showing willingness to listen to other points of view, voice perspectives in non-aggressive ways and/or in ways that promoted continued engagement and/or in ways that did not cause other members to leave or stop discussing any topic
		Having direct connection between community members and industry people	… any positive impacts of changes for the initiative of having people from commercial marine companies as members of the initiative … any positive impacts of changes of having items and topics of interest and/or reported importance to community members and/or importance to initiative members addressed through the processes and/or activities of the initiative … any positive impacts or changes for the initiative of having people from commercial marine companies reporting and/or explaining and/or sharing information about items and topics of interest and/or reported importance to community members and/or importance to initiative members addressed through the processes and/or activities of the initiative
		Members' commitment to the initiative	… any positive impacts or changes for the initiative of members continuing to engage and contribute to the activities, discussions or processes of the initiative regardless of reported or perceived difficulties, disappointments or challenges
	Achievements Where a person described outcomes or outputs or characteristics of how the initiative operated that they held to be significant, positive or that indicated to them progress	Built positive working relationships and trust	… any instances of members showing willingness to listen to other points of view; voice perspectives in non-aggressive ways and/or in ways that promoted continued engagement and/or in ways that did not cause other members to leave the initiative or stop discussing any topic
		Addressing marine debris	… any actions or activities that work towards reducing marine debris in the waterway

	towards the goals or objectives of the initiative	Improved information sharing	… any instances or initiative processes that enabled items and/or topics of interest and/or reported importance to community members and/or importance to initiative members addressed through the processes and/or activities of the initiative … any positive impacts or changes as a result of any kind of information sharing through the initiative on any items and/or topics of interest and/or reported importance to community members and/or importance to initiative members addressed through the processes and/or activities of the initiative
		Community member control of the initiative	… any instances of initiative processes or decisions that were determined by community members and/or for which community members assumed responsibility and that reflected community member interests and/or reported and/or perceived interests of members of the broader community
Your perspective on challenges and limitations of the case study initiative	Challenges Where a person described factors, experiences or characteristics of the initiative that influenced the process or the outcomes negatively	Nothing practical achieved	… any instances of any initiative decisions and/or agreed actions and/or commitments on topics of interest and/or reported importance to members of the broader community and/or importance to initiative members that were not addressed and/or actioned and/or resolved in line with the decision and/or agreed action
		Change in purpose	… any instances of formal and/or informal changes in agreed initiative objectives and/or purposes and/or intentions and/or processes that were perceived and/or demonstrated to have had a negative impact on the initiative processes and/or actions and/or relationships to achieve the desired outcomes and/or purposes of the initiative
		Power not evenly distributed	… any instances and/or actions in which the respondent perceived that some actors were able to override actions and/or decisions of others … any instances and/or actions in which the respondent perceived that some actors were able to inhibit other actors from voicing their opinions and/or taking actions

			… any instances and/or actions in which the respondent perceived that some actors were able to inhibit other actors from voicing their opinions and/or taking actions
		Lack of information sharing	…any instances in which any kind of information on items and/or topics of interest and/or reported importance to community members and/or importance to initiative members were withheld through the processes and/or activities of the initiative
	Limitations Groups of sentences, single sentences or fragments of sentences in which a person described factors or characteristics of the initiative that got in the way of the initiative achieving its goals or objectives	Lack of formal accountability for commitments	… any instances and/or examples of the lack of ability (absence of rules and associated meaningful consequences) of initiative members to sanction other members for not implementing and/or completing actions and/or not providing information as per commitments
		Slow pace for getting things done	… any instances in which agreed actions and/or processes and/or other changes were reported as taking more time to be implemented and/or completed than the interviewee thought to be reasonable
		Media	… any instances or examples that indicated that formal public media interest in and/or reportage of activities and/or topics related to marine activities and the marine ecosystem at the centre of the initiative restricted and/or changed and/or limited the activities and/or processes and/or relationships of the initiative
		Local government	… any instances or examples and/or observations and/or thoughts that indicated that relationships with and/or absence of relationships with local government officials restricted and/or changed and/or limited the activities and/or processes and/or relationships of the initiative in negative ways and/or ways that restricted the capacity to achieve the objectives of the initiative
Any other comments you'd like to make?	Other comments Any groups of sentences, single sentences or fragments of	Context specific topics	… any instance, story, example, observation and/or thoughts that pertained to the operation of the initiative should be coded using the organising codes

	sentences uttered by people in response to this question that related to the operation of the initiative		

In the first ‘familiarisation’ round, I used the interview questions to organise the material as set out in Table 13 (above) in the column titled ‘Step 1 Organising codes’. I then coded the organised material inductively as themes that represented commonly expressed perspectives on the initiative. The themes I generated are set out in the column titled ‘Step 2 Theming codes’ in Table 13.

Generating the picture of the initiative

To generate the picture of the initiative, I firstly wrote out descriptions of the common occurrences (how many meetings, attendance, topics etc.). I then read the coded material from both sources multiple times to identify descriptive themes with respect to what issues were described as significant and in what ways those issues were significant. I captured these themes in written form as presented in the case studies (first sections of analysis). I intentionally represented this material as fully as possible to reflect as faithfully as possible the experiences of the initiatives as reported to me by those involved. As noted in the opening comments for this step, the rich picture was also the basis for the deductive and interpretive analysis of Steps 2 and 3 (following). Because of this, I also decided it was important to ensure as full a picture of the material as possible was presented for maximum transparency of my qualitative analysis in Steps 2 and 3.

Step 2: Analysis of the conceptualisations of participation

To enable my analysis of the conceptualisations of participation at play in the case study initiative, I interpretively analysed the picture material from Step 1 using the axioms from Chapter 4 as the deductive guide or analytic frame. The rules I applied to this coding are set out in Table 14 below.

Table 14: Deductive analytic guide for the interpretive analysis of conceptualisations of participation in the applied case study context. The source of this analytic guide was the findings from the Chapter 4 study (pg. 100).

Deductive analytic guide	Interpretive strategy
Axiom 1 Participation is ontological Participation is *the* fundamental social process. Participation produces the social resources (such as social capital and trust, norms of sustainability and resource use and social sanctions) that underpin governance of marine social-ecological systems. This means that governance institutions must be and can only be participatory because change can only be created through social/group processes. Representative mechanisms disrupt the operation of the social processes. Institutional design must be predicated on social processes such as coalition building, consensus, compromise, negotiation – these are the central social decision-making mechanisms.	Material that referred to why participation is valued or important Material that referred to the outcomes, impacts or results of efforts at facilitating participation Material that referred to how participation could be, should be or was facilitated Material that referred to any representative relationships or arrangements Material that referred to how decisions or agreements could be, should be or were made Links between any of this material
Axiom 2 Institutional power is dispersed Power is already dispersed across the social networks. Governance – the connections between major actor cohorts – is the core institutional structure at the centre of the polity, as conceptualised within the SES paradigm. Governance structures must connect corporate/private/market governance, hierarchical top-down govern*ment* (bureaucracy) and civil (community) domains and the policy process (management) can only be negotiated and iterative because no single actor is or should be dominant. This also means that the state (bureaucracy), formerly the central power holder in decision-making, rule-setting, monitoring and compliance, becomes one of a number of influential actors for these activities.	Material that referred to which actors should be or were involved in the initiative Material that referred to why actors should be or were involved in the initiative Material that referred to limits to decision making and why the decision making was perceived to be limited Material that referred power or influence and how that was perceived to be distributed Links between any of this material
Axiom 3 Governance is social Institutional design must enable social processes such as knowledge production, social learning, consensus, compromise and negotiation as the decision-making mechanisms that reflect dispersed power and deliver the social resources that underpin the functioning of the social-ecological system, and will lead to social behaviour change and control, and the allocation of resources.	Material that referred to effective, preferred or desired processes for the initiative Material that referred to why the preferred, effective or desired processes were regarded as such Links between any of this material

Step 3: Analysis of the presence or absence of the conditions

To enable my analysis of the presence or absence of the conditions that comprise the participation–representation in the case study initiative, I interpretively analysed the rich picture material from step 1 using the lens of participation–representation generated in Chapter 3 (pg. 69) as the deductive guide or analytic frame as set out in Table 15 below. The analysis is set out in each case study chapter (Chapter 6, pg. 163; Chapter 7, pg. 200).

Table 15: Deductive analytic guide for the interpretive analysis of conceptualisations of participation in the applied case study context. The source of this analytic guide was the findings from the Chapter 3 study (pg. 69).

Deductive analytic guide	Interpretive strategy
Authorisation The ability of the represented to 'appoint' and in some way legitimise the representative in a way that recognises the active relationship between them.	Material that referred to how initiative participants could be, should be or were appointed to the initiatives or otherwise became known as members of the initiative Material that referred to why the methods, principles, practices and processes by which people became known as members of the initiative were held to be appropriate (or not – according to the material) Material that referred to the perceived, assumed or actual relationship between initiative members and other people from the broader community (and/or absence their absence) Material that referred to why any perceived, assumed or actual relationships between initiative members and people from the broader community (and/or the absence of these) were held to be appropriate (or not) and significant (or not) Material that referred to how any perceived, assumed or actual relationships between initiative members and people from the broader community (and/or the absence of these) should, could or were conducted (or not) Links between any of this material
Dissent and exit The capacity of or opportunity for the represented party (group or individual) to dispute change or withdraw from the representative relationship. This capacity is the sign that the individual or group to be represented is free from coercion, and therefore that the representative relationship is facilitating agency by agreement.	Material that referred to how people (members or non-member people from the broader community) could, should or did dispute, change or withdraw from any perceived or actual representative relationships or processes Material that referred to how any efforts or actual instances of dispute, change or withdraw from any perceived or actual representative relationships or processes were addressed or interpreted by initiative members and non-members Links between any of this material
Accountability This condition extends the 'reporting back' definition that we more readily recognise as accountability in common usage. In this lens, accountability encompasses the ability of the represented to take responsibility or be held responsible for the actions of the representative, that is to engage in some way in the actions of the representative.	Material that referred to ways, methods, practices and/or relationships by which people from the broader community were or could have been connected to the activities, decisions and/or other outputs and/or actions of the initiative Material that referred to how any methods, practices and/or relationships by which people from the broader community were or could have been connected to the activities, decisions and/or other outputs and/or actions of the initiative were described Material that referred to how people who were interviewed described what was significant (or not) regarding any methods, practices and/or relationships by which people from the broader community were or

	could have been connected to the activities, decisions and/or other outputs and/or actions of the initiative Material that referred to why any perceived, assumed or actual relationships between initiative members and people from the broader community (and/or the absence of these) were held to be appropriate (or not) and significant (or not) Material that referred to how any perceived, assumed or actual relationships between initiative members and people from the broader community (and/or the absence of these) should, could or were conducted (or not) Links between any of this material

I now turn to the case studies of efforts at participatory marine governance in the following two chapters.

Chapter 6.
Aspirations for integrated management: southwest Bay of Fundy, New Brunswick, Canada

This chapter presents the first of my two case study analyses of citizen or community participation in marine governance. The initiative at the centre of this case study was an ongoing effort to introduce a participatory approach to integrated management (IM) of the southwest area of the Bay of Fundy (see Figure 8 below), by establishing a new body known as the Southwest New Brunswick Marine Advisory Committee (MAC).

Developing institutional forms of marine governance that bring together actors from all parts of the governance system continues to pose challenges to policy makers and researchers alike and yet seems to hold a key for improving ecosystem governance (Stephenson et al 2019). The MAC approach to the southwest Bay of Fundy was a conscious effort at reforming existing democratic and bureaucratic management and decision-making processes. The MAC members sought to address the challenges of balancing human uses and conservation while ensuring social and ecosystem resilience to changing water conditions under climate change.

There are many dimensions to the IM efforts for the southwest Bay of Fundy, including a resource policy component. In this case study, however, I concentrate on how the ‘conceptual’ (i.e. principles and aspirations) and the ‘applied’ (i.e. what people in a marine social-ecological system actually did) worked together in the effort to create a participatory form of integrated governance in southwest New Brunswick.

Figure 6: Bay of Fundy, Canada – the southwest Bay of Fundy at the centre of the Marine Advisory Committee is highlighted in red.

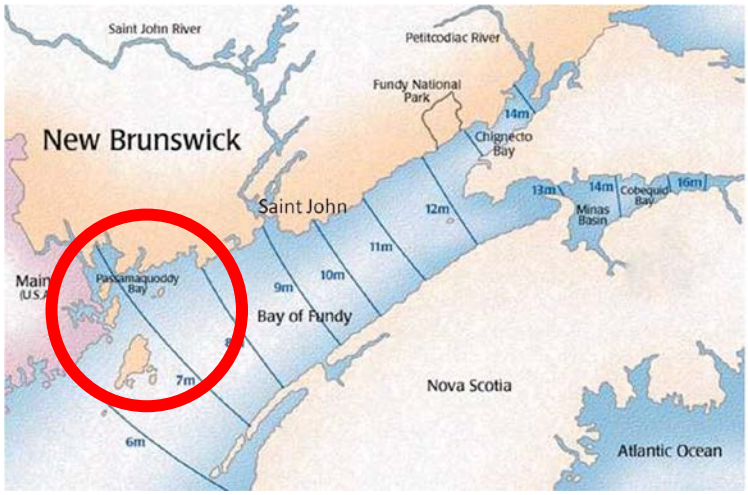


Image courtesy of www.bayoffundy.com accessed September 2017

Case study context: southwest New Brunswick and the Bay of Fundy

The province of New Brunswick is the largest of Canada's so-called Atlantic 'Maritimes'. It is situated between Quebec (to the north), Nova Scotia (to the south and east) and Maine (USA, to the west), and has two marine borders – the western shore of the Bay of Fundy and the southern shore of the Gulf of Saint Lawrence. Home to the indigenous Wabanaki, or 'people of the dawn', for at least 10 000 years (Bourque 2001; Black 2002), the land and its peoples were subject to a steady stream of European immigration from the early seventeenth century. The contemporary Province of New Brunswick has its roots in an imperial 'theatre of war' framed by French–English competition for land and state-making (Clark 1959), and a 1725 Treaty with the Wabanaki (Coates 2003; NBAPC 2017). The English largely defeated the French in this contest, leaving a French-speaking population of French and a large number of American immigrants from the end of the 1783 American War of Independence (Barkley 1975; Stewart 1990). New Brunswick was one of four provinces that formed the federation of Canada (1867) and remains Canada's only formally bilingual province (GNB 2017). Negotiations over governance and reparation between the Canadian State and First Nations have continued since the 1725 treaty (Government of Canada 2018). For the

Peskotomuhkati of southwest New Brunswick, Canadian recognition of First Nations status was hard won in 2016 after decades of persistent advocacy[11].

Today, New Brunswick is one of Canada's poorer provinces, with lower than average incomes, higher Provincial debt than most other provinces and slow GDP growth (Conference Board of Canada 2018). The Province derives the majority of its revenue from taxes and intergovernmental equalisation and transfer arrangements (Conference Board of Canada 2018). The New Brunswick economy is based on resources, particularly mining, forestry and fishing, with smaller but significant sectors in tourism, agriculture and small-scale manufacturing and growing sectors of oil refining and natural gas (GNB 2018). In 2015, marine industries represented 7.8% of Provincial GDP[12] (DFO 2018c) with shellfish fisheries and aquaculture significant industries in New Brunswick (DFO 2018c; FAO 2010). In 2017, New Brunswick fisheries were valued at $C546 225m, of which lobster represented well over half ($C286 826m). In 2017, New Brunswick salmon aquaculture production was 23 867 tonnes, worth $C227 843m (DFO 2018a). Growth in other marine industries continues, with marine shipping and transport, marine ecotourism and emerging marine industries, such as sea cucumber, among the most significant (DFO 2018c).

The maritime economy of New Brunswick is derived from the provincial waters of the Bay of Fundy – a distinct marine geological system that lies between the Canadian provinces of New Brunswick and Nova Scotia (see Figure 8 above). The Bay of Fundy stretches south to the American state of Maine, marking the American–Canadian border where the Bay system merges into the broader Gulf of Maine marine system (IHO 2012). Geologically, the Bay is a 'bathtub'-shaped deep. It experiences some of the highest global tidal ranges (Shaw et al 2012) with tides of up to 14 metres and current speeds of up to 6 metres per second at the head of the Bay in Minas Passage in Nova Scotia (IHO 2012).

[11] https://qonaskamkuk.com/peskotomuhkati-nation/ accessed February 2017

[12] Gross Domestic Product

The system is subject to marine warming, ocean acidification and species redistributions as part of the larger North Atlantic system[13] (Filbee-Dexter et al 2016; Koopman et al 2014). The upper Bay of Fundy is of globally recognised social and ecological significance, listed under the UNESCO Biosphere Programme (UNESCO 2017). The southwest area of the Bay of Fundy, shown circled in red in Figure 6 above, encompasses the Passamaquoddy Bay, a range of smaller bays and inlets and the Fundy Isles (Deer Island, Campobello Island and Grand Manan Island). This southwest area is the ecological context for this case study. The area is a particularly productive ecosystem with significant biodiversity and environmental values, resulting from the upwellings and seafloor geology marked by significant peaks and troughs and deep waters (Murison and Gaskin 1989).

The southwest area is also the site of a range of human uses of the marine environment and is dotted with coastal communities highly economically and culturally dependent on marine activities, as discussed above. Responsibility for governance of the marine environment is split across the Provincial and Federal jurisdictions, and across departments according to the marine activity. The complexity of the governance regime means decision-making balancing the human uses, declining fish stocks and ecosystem conservation and resilience concerns has been similarly complex (Chang et al 2014). Calls for integrated and participatory management have continued to grow over the past decade (Kearney et al 2007; Stephenson et al 2018; Charles 2012), and it was in this context that the Southwest New Brunswick Marine Advisory Committee was established.

The Southwest New Brunswick Marine Advisory Committee

In this section I set out a picture of the operations and experiences of the Forum generated from the documentation and interview materials as described in Chapter 5. The subheadings in this section represent the themes from the inductive analysis of the materials. This section provides the core material of

[13] Incorporating southwest Nova Scotia and the northern end of the Gulf of Maine

the case study that I subsequently analyse using the analytic devices generated in previous chapters. The rationale and detailed methods are set out in detail in Chapter 5.

The development of a participatory initiative

The (MAC) was developed from two protracted consultative phases into a pilot to explore the potential effectiveness of a standing community committee on integrated marine planning for the southwest Bay of Fundy. The MAC was jointly established by Federal and Provincial agencies and a group of active marine stakeholders in 2010 and continued until early 2017. The MAC's formal purpose was to provide 'community' advice to the levels of government on decisions and regulation of overlapping uses of the marine estate in the southwest New Brunswick area:

> *The purpose of the Marine Advisory Committee is to provide advice and recommendations to federal and provincial governments on relevant policies, processes, strategic matters, or issues of significant public interest related to new and existing activities from a non-sector community-based perspective.*
>
> MAC Terms of Reference, November 2013, Purpose, pg. 1

The Federal agency partner in the MAC was the Department of Fisheries and Oceans (DFO), Oceans and Coasts Management division. The Provincial agency partner was the Department of Agriculture, Aquaculture and Fisheries (DAAF). MAC meeting minutes (January 2010; February 2012) and Terms of Reference (2013) show commitment from the founding members to bring all parties together to 'manage' marine activities in an integrated way that could take into account 'community' values and interests.

Phase I Stakeholder forum

People interviewed for this case study reported that the MAC was developed from a much longer stakeholder–government/s engagement process beginning in the late 1990s. Phase I, the Bay of Fundy Stakeholder Forum, ran from the late 1990s to approximately 2004. Interviewees also reported that the stakeholder forum establishment had been triggered as an effort to deal with escalating conflict over access to water and the impacts of aquaculture on water quality. They also reported that towards the early 2000s, the conflict had toned down as herring and inshore fisheries were giving way to lobster fisheries as

the more lucrative fishery. In this environment, people reported that the focus of the group broadened to the coastal zone management and integrated management approaches emerging from the policy and science communities.

Phase II Community involvement in marine resource planning 2004–2009

The focus on integrated management gave rise to a six-year period of stakeholder and government marine planning known as the Southwest New Brunswick Marine Resource Planning Initiative (MRP) – Phase II. This is set out in *The Preferred Future of the Bay: Recommendations Toward a Community Based Plan for the Management of Marine Activities and Space in Southwest New Brunswick Bay of Fundy 2009* (*Preferred Future Report 2009*), pg. 4.

Interviewees reported that the government partners jointly funded a professional facilitator during this period to consult directly with a wide range of community groups and members through a comprehensive round of community workshops and meetings throughout 2007 and 2008. Interviewees involved in the MRP process reported that the consultations showed that people were keen on the notion of locally based control and direct community participation in integrated management of the area (see also *Preferred Future Report 2009*, pg. 7). However, the MRP phase did not result in a plan for marine resource use but focused on the governance process itself, as set out in the final report (*Preferred Future Report 2009*).

Phase III Marine resources planning – deliberation and transition 2009–2012

Both government sponsors accepted the *Preferred Future Report 2009* recommendation for an interim deliberative period to establish the Phase III Marine Planning Advisory Council (Minutes January 2010). Both government agencies also committed to engaging the relevant range of bureaucratic agencies required to establish the overarching vision of a regional management council (Minutes January 2010). Meeting minutes from this period show intensive and protracted work developing the terms of reference (TOR) through reporting and review between the MRP members and the Federal and Provincial agencies (Minutes October 2010; all minutes 2011; all minutes 2012).

The Southwest New Brunswick Marine Advisory Committee 2013–2017

By November 2013, the members had agreed on the TOR and the MAC commenced. The 2013 TOR established the MAC's purpose, membership rules, secretariat and operations, and decision-making rules. Founding MAC members comprised people who had been involved in the stakeholder forum and a selection of new members. The minutes do not consistently address the appointment of new members (e.g. see changes in Committee Members across Minutes February 2012, July 2012, December 2012, September 2013, May 2014, but see also e.g. Minutes April 2016 for an account of membership changes). People reported in the interviews that potential new members were to be recommended by MAC members and were appointed by the Government partners (see also Minutes May 2014). Central to the membership criteria was the stipulation that members were not to formally represent existing marine interests, but rather to speak as general community members (TOR; see also e.g. Minutes February 2012 and May 2014). Operationally, the MAC processes were administered by a secretariat comprising representatives from both government partners, a government official and a community member as co-chairs and a representative from the federal marine science agency. MAC decision-making was to be by consensus, and perspectives were to be generated using the community values criteria (CVC), a tool generated from the Phase II MRP consultations.

The MAC met at least twice in most years until September 2016. In July 2017, the Secretariat advised MAC members by email of its decision to dissolve ('sunset') the committee and to discuss future options for community engagement in oceans and marine management with former MAC members. Four primary reasons were given in the email to the MAC members for this decision:

- inability of the DFO and Provincial departments to integrate advice provided by the MAC;
- continued differences among members in their interpretations of the TOR and scope of the MAC;
- scheduling problems for senior public officers (DFO and Province);
- lack of fit between MAC geographical scope and various relevant federal agency responsibilities.

Non-government MAC members who were interviewed reported surprise at the advice and indicated that no discussion about the intention to decommission the MAC had taken place. The Government Secretariat officers invited members of the defunct MAC to a final review and closure meeting (see Minutes October 2017). The minutes for that meeting showed that no resolution to the four issues was found, and no future action had been planned. After nearly ten years of sincere effort, the participatory integrated management pilot was over.

Participant perspectives on the operations and activities of the MAC

In this section I set out the themes that reflected participant and non-participant perspectives on the strengths, achievements, limitations and challenges of the MAC. In setting out these themes here, this section provides insight into how the principles of the MAC and the actual processes and relationships of the MAC came together. This material is then further analysed in subsequent sections to problematise the conceptualisations and practices of participation.

The MAC 'Marine debris project' as an example of what's possible

People who were interviewed reported that the marine debris project was regarded as a success with respect to participatory or collaborative governance of a shared issue. The project sub-committee also produced a report that identified the absence of legislative responsibility for marine debris at any level of government and provided recommendations to the MAC's government sponsors to address this gap (e.g. see Minutes September 2016). Respondents agreed that it brought people together, resulted in useful action and attracted investment:

> *Now the one success we had, partial success, was – we stumbled on to, somehow or other, – marine debris ... It came out of the groups and just came to light ... So we were casting about for things we heard about, things we thought about, and marine debris has been on the radar of fisherman's (sic) associations for some time, and aquacultural debris has been top of mind for quite a while. M-COMMUNITY*

Everyone felt that it was the right thing to do, and it was low risk. They were willing to support it. So we did grab that low-hanging fruit to say 'let's test how we work together on that. (M-GOVT)

Built trust and robust working relationships

It was clear from the interviews that a number of MAC members regarded building trust and establishing working relationships as productive, valuable outcomes from the MAC process (see also Minutes October 2017):

*And people started opening up to the notion that it's multi-sector – it's not sector specific and it was quite a process. And within the steering committee itself it became less adversarial and more collaborative. (*M-INDUSTRY)

So there was good stuff that came from that [marine debris working group], and there was good relationship building between people who were likely to be opponents on things.

(M-COMMUNITY)

Three activities were linked to building trust and understanding between previously antagonistic parties. These were: 1) the intensive community planning process (MRP 2004–2009); 2) the dialogue that characterised the deliberative transition phase (2010–2013); and 3) working on the marine debris project.

'We didn't do anything'

Almost without exception, interview reflections on the MAC after the changes to its role in 2013 indicated that MAC members thought no actions of significance were undertaken other than marine debris, and that little or no influence was exercised through the MAC process. A long list of potential items of interest was apparent in the minutes and also identified by MAC members through interview. These included the conservation of unique areas, the introduction of marine protected areas, changing benthic conditions and the expansion of shipping and other marine industries (Minutes February 2010, July 2012, December 2012, September 2013, January 2014, May 2014, April 2015). Despite these interests, the MAC substantively acted on only one issue, marine debris, as discussed in the previous theme. Several people reported in

interviews that even the marine debris project had limited success because, despite accepting the report, the government partners did not respond in practical ways to the legislative gap identified in the report:

> *It's the same with marine debris. Nobody's – so we said we want somebody that we can call and say this is an issue, we want it – how we're going to deal with it, and who? – we have to start necessarily delegating responsibility … But no power. No ability to do anything ... So that was – we did, I thought, an excellent job on that, but it went nowhere.* (M-COMMUNITY)

This experience suggests that the MAC had no capacity to influence legislative change, contributing to disillusionment with the MAC as expressed by this member:

> *Have you heard about the marine debris group? I CAN'T celebrate something like that. [Researcher: why?] Everyone knows the problems with the marine debris and the solutions, and we didn't need to spend, I mean, this is a little bit cynical but to celebrate something that simple, like surely they didn't need the expertise of the people around that table to know what to do about marine debris. I think any of us, or any one of the political people there could have sat down in half an hour and done that. That's maybe a bit too cynical but I just think – talk about the easiest thing conceptually that you could tackle. [Researcher: so not just low hanging fruit?] It's already fallen. So to hold that up as an example of what the MAC can do I just think WOW we haven't set our sights very high if that's all we have to celebrate.*
>
> (M-COMMUNITY)

Marine protected area (MPA) planning was regularly discussed at the MAC table from as early as January 2011. The minutes also show that after protracted effort (e.g. see Minutes January 2011, December 2012, September 2013, December 2014, April 2015), the MAC members hosted a workshop in an attempt to generate advice to the Federal agency Department of Fisheries and Oceans (DFO) on MPAs (Minutes December 2015, April 2016, July 2016). Few interview respondents mentioned this work, and one respondent argued this was not an achievement (also see Minutes September 2016, October 2017):

> *Because I think there was quite a bit of frustration from the MAC members centered around MPAs, marine protected areas, because when it came to the MPAs we have quite a long*

> *workshop, one day, hosted by the MAC and as I recall [NAME] was there, and it was quite an intense day of oceans and southwest New Brunswick ... but at the end of it, just discussions really.* (M-INDUSTRY)

There was some evidence of the provision of advice to civil servants on some issues in the minutes (e.g. Minutes May 2014). Ultimately, however, interview respondents reported that the principal activities of the MAC ended up being passive: listening to presentations by external representatives, receiving updates on a few items (e.g. Minutes December 2014, April 2015, April 2016, September 2016, October 2017), and general discussion on key issues affecting the marine environment (e.g. Minutes May 2014, Minutes December 2015). Members explicitly expressed frustration that the MAC did not take any action or provide 'community perspective' advice about the substantial issues confronting the region, in particular planning for marine protected areas, for example:

> *We have had presentations given, nice presentations by various people, and it gave us good information, and we'd talk it out. And then we'd all go home. Revert. Rarely would we draw a conclusion.* (M-INDUSTRY)

> *We spent our time searching around trying to find something. And what it turned into was a lobbying group that anybody who thought they might get a toehold for their idea came to us and gave us a big presentation of two or three hours what they were going to be doing, and all this stuff ... It was, it was frustrating.* (M-PROF)

> *I think you will probably find that all of us are pretty discouraged and frustrated with the process.* (M-GOVT)

A number of non-government MAC members argued that this revealed the MAC's lack of authority and influence, despite the good intentions articulated in the TOR and the repeated assurances of Secretariat members, for example:

> *I was always so afraid that they would hold the MAC up to say we have consulted with the public through the Marine Advisory Council [sic]. Whoa! If – it's – we only meet twice a year – three times maybe. And that's not enough. You know. You go, you have your discussions,*

people go home, they forget all of this stuff, and then four months later they come back again and you almost start over. (M-INDUSTRY)

... and I found that as the process went along, it just got pulled back more and more, you know – 'we're not going to change the regulation' even though people were saying – the Deputies and Federal Government – were saying 'if we need to change legislation we're going to make this happen, do whatever, think outside the box, we'll make it happen'. Well after year one, it was 'well we're not going to change legislation. (M-COMMUNITY)

Several respondents also noted that after a few years of meetings, the political commitment to the MAC reduced; for example:

… and then there was a change in government. There was an election and so the political and governance commitment just basically faded. (M-GOVT)

This meant that while, in the early years, quite high-level civil servants championed the MAC, later responsibility for the MAC was allocated to middle managers who were given charge of administration and internal reporting but could effect little influence on other government agencies.

Negative impact of the change of direction after 2013

The structure approved in 2013 provided for the MAC to offer advice to relevant government agencies on major marine planning issues. This was quite different from a *Preferred Future Report 2009* recommendation for a fully funded community governance body that had reach across all levels of government and influence over any aspect of marine and coastal activity. The decision disappointed a number of members, as can be seen in the following:

Because that MAC was not what four years of marine planning process and investment was supposed to lead to. It was really a very non-functional group. Really … This is just another advisory committee that is now asked to advise on policy when asked by the government. Not on activities occurring in the Bay of Fundy marine planning area using the criteria. (M-PROF)

> *I'm sure other people would dress it up differently but if you set up something that is supposed to incorporate community input into decision making and you can't even discuss it [MAC process] – to me that was – I almost resigned when they gutted it so much that I didn't think it could work.* (M-COMMUNITY)

Both in the minutes and interviews, it was clear that non-government MAC members continued to hold the participatory and influencing aspirations of the *Preferred Future Report 2009* model:

> *I've just so much respect for them (members) so I think in some ways the marine advisory committee is a collection of all these people that have valid perspectives and pieces of information that if we could put them all together in a way that isn't already predetermined it would be a really, really dynamic and healthy and helpful process.* (M-COMMUNITY)

Minutes, from the first few years in particular, showed ongoing process debates and efforts to keep to those aspirations (Minutes February 2012, December 2012 and also October 2017). Respondents reported the change of direction also resulted in a lack of clarity among members over how to generate advice, and what consensus would mean in practice (see also for example Minutes January 2010, February 2010, April 2010, May 2011, February 2012, October 2017). The comments from some interviewees below indicate that the MAC got caught up with inward-focused design and process topics and so, in turn, failed to address any substantial issues related to the waterway (except marine debris as discussed earlier). Interviewees indicated this ongoing internal focus was a significant factor in disillusionment with, and then sunsetting of, the MAC:

> *One of the things that did get quite a lot of discussion was around the role. Which I think was one of the nails in the coffin of the initiative near the end – what are we actually doing?*
>
> (M-GOVT)
>
> *I mean a lot of these things worked really well in the classroom, or you know when you're talking to people who understand what all the issues are and so on, so you can have a great discussion. But really, making it happen on the ground is difficult and I think we've sort of shown that here.* (M-COMMUNITY)

The advisory committee could not decide to give advice. Not even – like it was not even like they couldn't agree on the advice – they couldn't agree on whether or not they should be giving advice. (M-GOVT)

Power differential emerged which limited scope

The interview responses showed that in the early days, the MAC was fuelled by good intentions on the part of all participants to develop a deliberative model for generating solutions to conflict over access to the water. While the Secretariat continued to ask the membership to identify topics for planning or action, in practice the Secretariat was reported to have limited the scope of permissible topics:

So really it all sounds great. We could all work on things, like community values criteria, and say this is the right stuff that we feel reflects the interests in the area. When it came to application and implementation it just did not work. It could not work. (N-GOVT)

And we had been talking about marine protected areas during the whole planning process and up until then. And for some reason, it just – we were no longer involved in marine protected areas. … they just decided not to … I don't want to sound too negative, but that was a huge blow to that process [the MAC]. (M-COMMUNITY)

Over time, and as topics for work and discussion were tabled, the limits to what government officials could reasonably handle under existing bureaucratic structures became increasingly clear (see also previous point *Negative impact* and Minutes October 2017). The language in the interviews indicated that non-government MAC members experienced the scope limitations imposed by the Secretariat as an unexpected power differential, which felt at odds with the initial spirit and intentions of the MAC; for example:

But there was also sharing power, isn't a thing that governments naturally love to do … we were told to think big, think big brave thoughts and we can change things. But when it came down to it a lot of people who work for government are very traditional, they understand how things have been done, rather than how they might be able to be changed. So just the idea

of sharing power with a bunch of uninformed community people – or even informed community people – wasn't comfortable. (M-COMMUNITY)

And I distinctly remember times when somebody brought up something, and you could almost see the government people kind of looking at each other and thinking what should we do with this, should we shut this down. (M-INDUSTRY)

Applying the axioms of the SES participation norm to the MAC

The participation norm is a significant element of the SES paradigm, the coherent ontological and epistemological shift to systems thinking in marine research, as discussed in Chapter 4. Under the SES paradigm, participation is firstly ontological, rather than only optional, strategic or instrumental. I also showed in Chapter 4 that representative mechanisms evident in SES practice are treated as pragmatic resolutions to ensuring manageable institutions and processes but are overlooked conceptually under the powerful influence of the participation norm. If the norm is influencing the MAC, this suggests the MAC may also have treated representative mechanisms as separate from participatory aspirations and mechanisms, and may also therefore lack democratic legitimacy, as discussed in Chapter 4. In this section, I address the research sub-question: *(1a) How did the dominant conceptualisation of participation influence the structure and activities of the participatory initiative (if at all)?* (i.e. the dominant SES participation norm as identified in Chapter 4)?

The purpose of this analysis is to understand the influence of the SES paradigm in actual instances of marine governance and so problematise notions of participation in the applied context. I did this by setting out my analysis of the activities and structures of the MAC using the three SES axioms as laid out in Table 14, Chapter 5, pg. 137 above. The analysis is set out using each axiom as a subheading.

Participation is ontological (Axiom 1)

The core animating principle of the *Preferred Future Report (2009)* model is that of participation of all actors that comprise a society and directly reflects the first axiom of the participation norm. Each of the

following statements from the *Preferred Future Report (2009)* asserts participation is essential and needs no justification:

> *The proposed planning approach establishes an Advisory Council of representatives of ocean sectors and communities of interest to ensure local participation and transparency in marine management and development.*
>
> Preferred Future Report 2009, pg. 5
>
> *Implementing a marine plan in southwestern New Brunswick Bay of Fundy requires dedicated support from all levels of government, industry, Aboriginal communities, stakeholders, citizens, academia and science.*
>
> Preferred Future Report 2009, pg. 4

In the deliberation phase (2010–2012), MAC participants embedded the participatory intentions and assumptions of the 2009 *Preferred Future* model into the MAC's structure. As discussed above, MAC members worked to maintain the core principles of the original 2009 *Preferred Future* vision. MAC members interviewed also noted that the MAC kept going despite the lack of practical action, and the members, including government members, stayed with the debate on principles long after other groups may have dissolved. The primary purpose, community participation, remained a strong value and aspiration all the way through (e.g. see Minutes October 2017). As discussed above (*Negative impact,* pg. 149), this persistence reflected the sense within the group that it was an important idea, that some kind of participation was essential. Participation for MAC members was not an optional extra: it was a reflection of how the world should be, for 'true' marine governance.

The way participation should be constituted for the MAC was specified in the 'hats off' rule. The 'hats off' metaphor was first used in February 2010 (Minutes February 2010), and referred to the TOR rule that members were not to formally represent the interests of or forward a specified agenda on behalf of any

organisation or set of constituents to which they may formally belong[14]. This rule sought to have MAC members draw on their experiences and knowledge of their networks, and to speak from this experience on their own behalf as knowledgeable community members (e.g. Minutes February 2012). The rule specified that they were specifically not to represent or take the position of any formal organisation they may belong to either as a member or as staff. Those who supported this rule explained the rationale as follows:

> *I guess maybe in terms of relationship building, at first. I think maybe it brought people into a table where they would be forced to not be the aquaculture representative versus the – you know. I think it created a sense of 'well we need to work together collectively' as opposed to just 'let's take out positions in these, let's make our positions known.' I think it brought people perhaps a bit more willingness to come together and sort of say 'Ok, here's something that we have to recognize is beyond our own interests – there's a greater whole here than our own individual interest'.* (MAC GOVT)
>
> *But I don't think that concept was well understood. I can offer you my honest opinion as a fisherman. As a fisherman my opinion on the use of certain grounds is going to be different than you as an aquaculturist or you as a conservationist. And I can't say, because I am a fisherman it's ingrained in me, but I feel I can represent the fishing point of view without – and this is a subtle point – but if I'm in the employ of a fishing association and go to a meeting, and they tell me before I go, 'you are not to compromise on A, B or C – we are paying you'. You do not compromise its position, then I can't leave my hat at the door. [Researcher: but you as a fisherman can take a different course? Is that what you're saying?] Yes I can. I'm not going to do anything to harm the fishery but there are areas for compromise … And I*

[14] The statement reads: 'Advisory Committee members will provide individual perspectives, knowledge and expertise from their diverse backgrounds, but will not represent specific sectors or interests.'

> *might see areas for compromise my fellow fishermen don't. But in a sense the fishing industry has to deal with this because they're – the way – people are not happy when you have two opposing positions and the government steps in and says this is what it is. That does not help us to apply our local knowledge to the solution. Right.* (M-INDUSTRY)

The 'hats off' rule was clearly a denial of representative mechanisms. True participation, under the 'hats off' rule, must be direct and not inhibited by formal representative responsibilities. This is an expression of the separation of participation and representation inherent in the SES axiom that participation is direct and only self-presentation is an appropriate form of agency.

Dispersed institutional power (Axiom 2)

The recommendations in the *Preferred Future Report 2009* explicitly stated that marine governance via formally constituted stakeholders' involvement in government-dominated process was insufficient for good governance. Rather, it is stated in the report that civil or 'community' processes must be integrally connected to existing forms of governance as expressed in the first Preferred Future objective:

> *The proposed planning approach allows for more participation in decision-making, conflict resolution, and transparency of processes. It provides a common set of decision criteria which will guide decision makers for all marine activities, existing and new.*
>
> Preferred Future Report 2009, pg. 5

The concept of the regional office, governed by all actors including government, as 'the window' for 'the public' was an attempt at a very practical expression of dispersing power among the actors (*Preferred Future Report 2009*, pg. 5*)*. In the rationale for this model, narrowing the gap between the existing forms of governance and 'the community' is asserted but not justified for any other reason than the principle in itself:

> *Alleviate disconnect between public and centralized offices (e.g. Fredericton).*
>
> Preferred Future Report 2009, pg. 13

Here, alleviating the disconnect is presented simply an expectation that meets the needs of the public and requires no further explanation.

The functions of the proposed community governance structure were to assess activities and proposals and directly advise the respective Ministers:

> ***Purpose (Function):*** *Make recommendations to Provincial and Federal Ministers on marine activities and applications within the marine planning area.*
>
> Preferred Future Report 2009, pg. 10

The link was to be from 'the public' to the Minister, sidestepping the bureaucracy and mirroring the access of private lobbyists but underwritten by legislation.

> ***Authority:*** *Will operate independently of government but will be established, supported and given authority under a new or current act which will define their boundaries, membership and resources.*
>
> Preferred Future Report 2009, pg. 11

Such a legislative basis would effectively enshrine the notion of 'the community' as a distinct and directly influencing form of governance alongside that of the bureaucracy. In this way, not only is government linked institutionally to other actors but it is also judged to be just one of a number of influencing actors necessary for marine governance. The following point from the *Preferred Future Report 2009* purpose statement lists each cohort or social actor alongside each other with no hierarchy or priority, and asserts that each is essential:

> *Ensure communities, including Aboriginal communities and municipalities, are involved in decision-making processes leading to true integrated marine management.*
>
> Preferred Future Report 2009, pg. 9

Lining up the cohorts non-hierarchically implied that the governance systems ought to be dispersed away from individual agencies in some way. The assumption is that govern*ment* is insufficient for govern*ance* of the marine commons. In asserting that government is merely another actor alongside First Nations and 'the community', the *Preferred Future Report (2009)* model reflects Axiom Two – that power must be dispersed, and actors institutionally connected as equals for 'true' marine governance.

Although not the recommended *Preferred Future Report (2009)* model, the MAC model did retain the commitment to addressing the public interest and providing an avenue for the voicing of 'non-sector community-based perspective' (e.g. Minutes February 2012). The MAC TOR purpose statement retained, as can be seen in the quote below, the principle that the participatory process was required to ensure community perspectives could be channelled directly to the formal decision-makers as integral to integrated marine governance, and that this needed no further justification:

> *The purpose of the Marine Advisory Committee is to provide advice and recommendations to federal and provincial governments on relevant policies, processes, strategic matters, or issues of significant public interest related to new and existing activities* ***from a non-sector community-based perspective****.*
>
> MAC TOR 2013 Purpose (emphasis added)

To facilitate the community voice, the MAC TOR specified a 'community' membership category, but did not specify how this should be fulfilled. In practice, people who were known to the existing MAC members as being closely involved in some kind of marine activity, or to have some level of marine-related expertise but not officially engaged in representing any interests, were appointed as general community members. MAC members reported that the 'community-at-large' role was to capture an imagined 'community perspective':

> *I'm a community-at-large person, I don't have any particular position for any organisation … that's how I first even became involved in this process because they were looking for someone to come in as an advisor to the process of trying to come up with this community values criteria.* (M-COMMUNITY)
>
> *I never thought of representing them in particular. I don't work for a particular environment group, although I'm involved with lots of them. Or a member or that kind of thing. I just – I mean I think I primarily thought of myself as a community member at the table.* (M-COMMUNITY)
>
> *I would say me because of my background. I think if somebody else came in they (employer) wouldn't have (let them participate in the MAC). You know, I've lived here. And I've lived here for over thirty years.* (M-GOVT)

> *They were individuals with experience bringing it to the committee, but they weren't asked to be representative OF the community.* [Researcher: In fact it seemed the other way around, they were asked specifically not to represent a community?] *Yes. They were chosen because of their understanding of what things were. Because they (MAC) didn't want them to have to feel they were obligated to report back to certain institutions to get advice. I mean they lived in the area, they see what's going on in the area, therefore their thoughts were good enough to be taken as this was what we should do.* (M-GOVT)

They were to represent without actually representing. The community-at-large membership category was clearly an effort to ensure 'the community' was at the table to enable deliberation on marine activities. In practice, this membership category, as with the 'hats off' rule discussed above, was an uneasy denial of representative mechanisms over direct participation – reflecting the influence of Axion One participation is ontological. At the same time, the TOR clearly stipulated that 'non-sector community perspectives' must have an institutionally significant role that was to be substantially connected to the other forms of governance, i.e. to have influence – reflecting also Axiom 2.

Governance is social (Axiom 3)

This axiom had only limited resonance within the MAC and there were not any direct references to this principle in either the rule or the perceptions reported by members. The ideal model of governance set out in the *Preferred Future Report (2009)* recommended deliberative and participatory processes to generate social processes deemed appropriate for dispersed integrated community-based governance: education, input, support and involvement. These principles reflected to some extent the axiom that governance is social. The consensus rule of the MAC as it was actually constituted in 2013 pointed to the preference for socially based, deliberative approach to decision-making and advice provision. The consensus rule was set out across two clauses in the MAC TOR 2013 as follows:

> *The Community Values Criteria (CVC) and local knowledge provided by its members through interaction and communication with local community members will be used to help guide the Committee in developing its consensus-based recommendations or advice.*
>
> Purpose statement, MAC TOR 2013
>
> *Final recommendations or advice to government departments will be established by consensus and when differing views may exist, these will be recorded and also communicated to departments.*
>
> Membership statement, MAC TOR 2013

Further, members were to be selected not only for their knowledge and experience but also for their personal capacity to compromise and deliberate. This criterion was specified in the MAC TOR as follows:

> *Individuals will be appointed on the basis of their knowledge and expertise relative to the MRP Area and their ability to participate and contribute in a constructive fashion.*
>
> Membership statement, MAC TOR 2013

These two rules point to a preference for social capacities as the basis for the MAC; however, this is a limited link to the axiom. Rather, the focus of the *Preferred Future Report (2009)* model is primarily institutional, as discussed in the previous axiom. With respect to the MAC as it was constituted after 2013, the practices and processes were primarily meetings with discussion items and presentations; in other words, also primarily procedural rather than social in the sense of this third axiom.

Applying the lens of participation-representation: authorisation; dissent and exit; accountability

In this section, I address the second case study research sub-question: *(2c) What does application of the conceptual lens explain, if anything, about the dominant conceptualisation of participation in the applied context.* I do this by applying the lens of participation-representation to the intentions, assumptions, reported experiences of the MAC members and the MAC institutional rules and practices. In Chapter 3, I identified the three 'conditions' from political representation theory that help explain and analyse the democratic legitimacy of participatory mechanisms: authorisation; dissent and exit; and accountability.

These three, together, comprise the participation–representation lens as described in Chapter 3 (pg. 69). The lens is directly relevant to the MAC because the overt purpose of the MAC was fundamentally democratic in intention: to facilitate the influence of non-sector community-based perspectives on marine planning, decision-making and monitoring. The structure of the MAC, given this purpose, should facilitate the participation of those non-sector community-based perspectives and somehow deal with the complexity of converting a plurality of potential interests, values and perspectives into a process. I address each condition in turn. I finish this section with an analysis of the community values criteria (CVC) tool using the three conditions. The CVC was held by MAC members to be a significant if controversial activity and output and represented a particular case of participation and representation in its own right. My analysis of the CVC did not fit neatly within the three conditions separated out as themes. It was, however, an important component of the MAC that also goes to the centre of my research concerns: participation and representation.

Authorisation

There were two problems of democratic authorisation for the MAC: the appointment of members, and the hats off rule. The formal authorisation process for MAC members belonged with the Secretariat. The TOR is specific on this count, stipulating that membership be by Government appointment. In practice, appointment of members rested jointly with the government and citizen co-Chair and recommendations for members could be suggested by the MAC at any time (e.g. Minutes February 2010). No description of the process of identifying people for recommendation was apparent in the TOR and the minutes showed few instances of discussion at the MAC table of membership (e.g. Minutes February 2010, April 2016). The MAC membership list, as the practical definition of ‘communities’, specified twelve marine interest areas of which ‘communities’ was just one (MAC TOR 2013 Committee Composition and Membership, pg. 1). This represented the MAC’s effort to capture the plurality and diversity of the broader southwest of New Brunswick community. In practice, how to constitute the ‘communities’ category was left to the interpretation of the MAC members and Secretariat through their recommendations for potential members. Potential ‘communities’ members were suggested by MAC members, but not from outside the network of MAC members (e.g. Minutes February 2010, April 2016). Furthermore, only those known to the existing

MAC members were appointed as ‘communities’ people, the so-called ‘community-at-large’ members. As discussed above, in their own words these ‘community-at-large’ members were identified informally by reputation from within the MRP and MAC network and did not have specified or clear connection with members of the broader community. Neither was it clear to interviewees why some people were invited as members and others were not:

> *And then I know from others on the MAC that my name was put forward several times, there was apparently someone from the [GOVERNMENT] that opposed me joining … So I think my participation was blocked for a while. Eventually I was asked to join and I did.* (M-PROF)

> *I would say I have above average knowledge of it (MAC) … I would have the most knowledge of anyone who’s not on it*. [Researcher: Why are you not on it?] *Why am I not on it? I know! That’s a great question.* (N-PROF)

The ‘authorisation-by-appointment’ process presents problems. People who live in the broader community clearly were not responsible for authorisation of participants who represented ‘community perspectives’. Potential ‘communities’ constituents had no role in authorising MAC members who were nevertheless appointed to speak as ‘communities’ – that is, represent people who live in the community. Indeed, the institutional rule for the appointment of MAC members (appointment by Secretariat) actively prohibited authorisation of community-at-large members by everyday people from the community.

The ‘hats off’ rule was put in place, as discussed earlier, to enable members to engage freely in debates, deliberation, consideration of alternative viewpoints and generation of consensus advice. In other words, the ‘hats off’ rule was designed to privilege direct participation of ‘communities’ over participation of formally prescribed ‘marine stakeholders’. MAC members acknowledged that formal stakeholder representatives backed by formally constituted associations would be prohibited by their association rules and responsibilities from engaging in deliberation and consensus decision-making. Not only that, but conceptually, formal representative positions would not have been consistent with the MAC purpose of generating ‘non-sector community-based perspectives’.

Despite the democratic intention, very few respondents hailed the 'hats off' rule as a successful approach to participation and it was contentious from the earliest meetings of the MAC (Minutes February 2010). The impact of the 'hats off' rule resulted in significant ethical problems for MAC or would-be MAC members. In one of the early MAC meetings, the Chief of the Peskotomuhkati was invited to join the MAC in his capacity as a marine scientist, but not as a leader of the First Nations. Some MAC members reported this occurred because, at the time, the Peskotomuhkati had not been formally recognised by the Canadian Federal Government as a First Nation and so his legal status in the Canadian system created a problem for the Government Secretariat members (this was to come subsequently). The Chief's dissent, and then exit, was recorded in the minutes as follows:

> *[Co-Chair] introduced [NAME], who briefly attended the meeting to address the committee and explain his position as Chief of the Schoodic [sic] Band of the Passamaquoddy [sic] Tribe and give his reasons for declining the invitation to participate as a Steering Committee member. [NAME] stated that he came to offer his apologies to the SC for not accepting their generous offer to join the committee however this is not a luxury he feels that he has since he cannot come to this table and leave behind his culture and who and what he represents.*
>
> Minutes February 2010

The experience of the Chief reflected in these minutes draws attention to the personal nature of representative roles – that they are either closely associated with the person's identity and also, in ethical terms, a formal responsibility they cannot and should not shirk or compromise. This was echoed by other people interviewed, as follows:

> *Well I gotta [sic] say sitting around a table I never want people to take their hat off. I just think that's – like how do you take your hat off? You live here, you know things. You know things about the biology, you know things about the fishing, or you know things about tourism or conservation, and I think that's the very thing – we do invite people to come – I think the only way – like (you're saying) you don't want them to come and only speak FOR their organisation, you want them to speak for THEMSELVES with the knowledge of the particular*

area of expertise – I don't know how! If you call that hats off, from the ties you have to a particular organisation – I don't know. (M-COMMUNITY)

There were good people there, and they were chosen for a reason. [NAME] was there and he had a vested interest, but they were like '[NAME] was not brought here to represent the [ORGANISATION]'. This is the weird part about it. But he had a link to the [INTEREST]. They wanted it to be [NAME], this guy from [AREA] with a connection to the [INTEREST]. When in actual fact there was no way on God's green earth that [NAME] could put aside his connection to his work. This is the hats off thing ... It sounds ok. But when you dig at it a little, it's ridiculous. (N-PROF)

In practice, a number of other MAC members who joined at various times were also interest group representatives, rather than only individuals with 'knowledge and expertise'. This meant, for example, that an employee of a traditional fishery association with formal responsibilities for negotiating fishery interests was required to act in the MAC, as a general citizen who also cared about traditional fisheries. That person – the individual – could not, however, table any formal positions or progress any organisational agenda. The following account of the 'hats off' shows the tension arising for MAC members in such a position:

It was this funny thing where we were told to remove our 'hats'. So I was supposed to remove my 'hat'. So I said like are you expecting me to take today off work? Do I have to take a holiday to come here? Really? I need my Executive Director's consent to be here, and really, how the heck do I take my hat off? ... But if it's (advocacy) within my job, and if I'm here, well. (M-PROF)

Other respondent accounts also draw attention to this challenge:

Well, the first thing is I don't think it's ever going to really work if you're going to have multiple – if you're going to be pulling in a membership from different sectors of interest, some of which conflict with each other, appoint somebody and them tell them that when they are at this table they don't represent their interests, they represent themselves and their knowledge – and their knowledge of that sector but not represent – it was impossible! How can you

actually ask somebody to do that? ... What we had set up was - and everyone knew it. But 'oh yeah ok' you know – but everyone knew that it was really their sector. So I'd rather just call it clear. (M-GOVT)

… we didn't really dwell on it so much after the planning stage. I think people sort of realized that even though you were sitting there trying to have your 'hat at the door' you were still part of whoever you are. So although we weren't theoretically representing a community there were certainly people who thought I represented a community of people. (M-COMMUNITY)

The MAC members implemented the 'hats off' rule to overtly sever the formal and contractual authorisation of the majority of the members to represent the interests listed in the TOR, even while also attempting to incorporate their 'expertise and knowledge'. The MAC rules or practices did not create legitimate alternatives for authorisation of the members by potential constituents but rather retained authorisation inside the MAC with the Secretariat and continued to hold to a fiction of a separation between participation and representation. This tension created significant ethical concerns, and yet was not ever resolved conceptually or in practice.

Dissent and exit

The appointment of members, and the 'hats off' rule revealed that dissent and exit were conceptually and functionally absent from the MAC. Firstly, given the absence of community authorisation processes for individuals to represent the membership categories, there can be, by definition, no formal opportunities for potential constituents – individuals or groups – to dissent or exit the representative relationship. Even if this had not been the case, people in the community would have to know about the MAC in order to repudiate the choice of members appointed to speak on their behalf, or dissent from any advice generated. MAC members reported they believed no one beyond the network of MAC members knew about the MAC; for example:

For better or worse people have NO idea. You talk to the average person they would have no idea there is such a thing as a marine advisory, the people that do know about it, lots of them would probably be pretty suspicious about it and think well this is just going to be

> *manipulated and a tool of government to impose stuff on us. You know, through the complicity of these people (MAC members). So nobody's going to notice that the MAC disappears.* (M-COMMUNITY)

Similarly, non-member people indicated in their interviews no awareness of the MAC, as can be seen in the following quotes:

> *I probably should know about it. It sounds like an important thing and we need it. We definitely have an interest, I thought that was why you wanted to talk with me.* (N-PROF)

> *I have not heard of it. But that does not mean that other people haven't. I'm just not in those circles.* (N-COMMUNITY)

These two respondents were active in public community life, had lived in the region for a considerable time, and reported strong connection with the waterway and high levels of concern for the balance between human uses and marine conservation. Neither had heard of the MAC, and so, in turn, neither had opportunity to dissent from the structure of activities of the MAC, let alone exit the implied representative status of 'community-at-large' members.

Secondly and significantly, the experience of the Chief of the Peskotomuhkati, discussed in the previous section, illustrates the way this absence of dissent and exit impacts. The MAC response to his dissent (against the 'hats off' rule) and exit (from MAC) was to invite representatives of First Nations from other waterways (Minutes February 2012 and September 2013), rather than address the ethical problem to which the 'hats off' rule had given rise. In his own words, seen in the quote following, the Chief objected strongly to the response of the MAC members to his experience:

> *And whether or not we were recognized, there's an obligation there. That was easy for them [MAC members] to say that without recognition we can't talk to them [First Nations] – so there's the artificial part of what they were doing, started right from the get-go. Then they suggested that maybe I could come into the room – that would then make me one of their stakeholders because that's the ways they were behaving in the room. And I also said, as an indigenous person I will not take my culture into the room because I will not put the culture of*

my people up for – and I know it was an advisory committee but somehow advisory committees seem to give advice that, well I guess to a governance level – and it's no longer advisory if it becomes, if not law, then it becomes some sort of rule or regulation or whatever, a licensing agreement or etc. etc. So I would not be in that forum, my culture would be up for discussion with fisherman, with fishermen, who – there was so much conflict in that room. So that's why I maintained with government they needed to have that discussion with me before it went into that room. So I would not enter the room, for that I was criticized because you know if you want to be part of it, then you should participate. So their attitude was, 'you know well ok' so they brought in people of the Wolastoq, and they'd already given them rights to my territory. This was another disaster – how do you displace one indigenous people, people who are indigenous to a territory, with another native people? Given them access to your rights and say that 'ok we now have the "aquaculture salmon" replacing the "indigenous salmon"'? Chief of the Peskotomuhkati of Skutik

The 'hats off' rule, then, created a significant ethical problem and objection from the Chief of the First Nations people of the area. Notwithstanding this, the MAC members did not adjust the MAC position on First Nation's participation – it did not, for example, take an ethical position on the Pekotomukhati's rights. Nor did the MAC members adjust the 'hats off' rule in the face of his substantial objection to this form of participation and representation, dissent and consequential exit. The dissent and exit condition was not only conceptually absent, it was also practically absent – with deeply concerning ethical results.

Accountability

There were three points at which accountability failed in the case of the MAC: passive public communications; non-specific 'connection' with communities; and the 'hats off' rule.

Firstly, the MAC Secretariat maintained a website[15] housing MAC documents and records. It was a passive communication tool with capacity for community members to email comments to the MAC. Throughout the deliberation and transition phase, the role of communications was raised regularly (Minutes April 2010, August 2010, October 2010, January 2012, February 2012); the minutes showed no evidence that this had happened and by 2014, for example, mention of community interface and communications was reduced to closing 'roundtable' comments (Minutes December 2014).

Secondly, the TOR stipulated that MAC members retain some form of connection with people relative to their primary area of expertise and knowledge, as follows:

> *Advisory Committee members will be expected to regularly interact and communicate with members of the public from their area relative to Advisory Committee activities and to maintain an understanding of the community values and views relative to issues.*
>
> TOR 2013 Committee Composition and Membership

This appears to be an effort to specify active accountability between MAC members and people who live in the community in an informal 'mingle and absorb' form. There was no evidence in the minutes that MAC members pursued this systematically or purposefully, nor were they held accountable for doing this. Indeed, in the previous discussion of 'community-at-large' members, the connection was assumed and non-specific. This instruction was not a clear mechanism for brokering active connection between the MAC and other community members who might share particular marine interests or values.

Thirdly, while the 'hats off' rule has been thoroughly examined throughout this section, there is one final comment to make. The 'hats off' rule was overtly designed to sever the formal active accountability responsibilities of MAC members who also held other formal representative responsibilities outside the MAC. MAC members in formal representative roles, however, could not ethically suspend their responsibilities for a deliberative process. They could not, and arguably should not, have traded off

[15] http://bofmrp.ca/home/

principles, stakes or interests on behalf of their members without recourse to extensive consultation (and which may not result in a trade-off or compromise positions anyway).

Applying the conditions to the community values criteria (CVC)

The CVC was not used at any stage for generating advice, despite its design for that purpose and its status in the TOR as the key decision-making tool. Models and artefacts like the CVC are common in participatory processes and so I have analysed the CVC to understand how the three conditions (authorisation, exit and dissent, and accountability) might assist in evaluating the legitimacy of such models and artefacts.

The TOR purpose statement specified that the CVC was to be the primary tool for generating the advice:

> *The Community Values Criteria (CVC) and local knowledge provided by its members through interaction and communication with local community members will be used to help guide the Committee in developing its consensus-based recommendations or advice.*
>
> Purpose statement, MAC TOR 2013

The CVC was built from a solid participatory and co-productive basis, through wide-ranging community consultations conducted during 2008 and 2009. Community concerns were elicited from workshops and summarised in the CVC template to produce a workable model of the marine values of the region, which was then validated in subsequent workshops. Firstly, then, it could be argued that the CVC was clearly authorised by community members it aimed to represent. It was because of these participatory foundations that MAC members decided to use the CVC as the basis for MAC deliberations. The assumption in this decision was that the legitimacy of the CVC, authorised during the consultative, co-production process, would carry through to the work of the MAC. MAC members, by this logic, could use the CVC to assess proposals or policies with an assurance that they were legitimately reflecting community values. The logic of this authorisation process is appealing, and to some extent satisfying. It may be that the logic of this authorisation process – widespread consultation or co-production – holds promise for establishing authorisation outside the electoral mode.

In practice, however, the following accounts of trying to use the CVC vary in their assessment of the tool but all indicate that its promise was not fully realised.

> *If there was a discussion it was never at a very concrete level. We never really put it into practical terms, it was always kind of those things people looked at and said 'mmmm'.* (M-GOVT)
>
> *Uhhhh, [long pause] that seemed very academic to me. I think it was obviously worthwhile doing, but it took a long time and it seemed overly complicated.* (M-INDUSTRY)
>
> *It has the potential if done properly, with the proper ground rules, it does have the potential I think of providing a tool of a framework for organising advice. Or an assessment.* (M-COMMUNITY)
>
> *So you had this matrix with the CVC. So once we had that matrix we came to a MAC meeting with government. The governors, Provincial people, thought 'we have an approach here'. To use a matrix and apply a numerical value to each of the criteria – to whatever was the discussion at the time. So we tried setting up a numerical matrix to say ok on a score of one to five what does the MAC feel about the CVC – well we had 20 people around the table trying to come to consensus on is it a 1, 2, 3 or 5. Well, that process did not work at all. Didn't work.* (M-PROF)
>
> *Like I just think it's a dumb idea. I just think it's – honestly I just think it's stupid. You cannot ever reduce this, I see the appeal of it. Because it looks very scientific, it looks very formal, you're attaching values to things and then you can make decisions, but it's – it can never capture the complexity of this area … Ok let's take something less controversial at the moment, say tidal power. And they could say well if the proposal is to put a turbine in this location, whatever, wherever that location is exactly, then let's go through this community values criteria and we'll come up for scores. Like – we're not – there's no way we're going to agree on what – you know like, we may hammer out something that no one in the end agrees with – like on all the points of the values criteria. But we'll come out with something that looks*

> *like a decision based on a process that looks like it's credible but in the end the decision is – does it really reflect?* (M-COMMUNITY)

These accounts indicate that any initial legitimacy the CVC had only held so far. Once the issues under consideration became high stakes, for example MPAs, it became difficult for MAC members to take a stance on, or deliberate over, differences. This suggests that, secondly, in practice, accountability for the application of the tool must be actively exercised for any decisions made to be regarded as legitimate. Thirdly, once the CVC was converted to a representative template and separated from its participatory basis, neither dissent nor exit from the representative relationship encapsulated in the CVC were possible for general community members.

No plan to review, revalidate or update the CVC was apparent in any MAC documentation. Neither was there evidence of intention to validate with the broader community any assessments made by the MAC members using the CVC. Even if MAC advice generated using the CVC had been published on the website, as noted above, this form of community interface was passive and so would not have constituted a meaningful opportunity for either accountability or dissent and exit.

In practice, then, as with the other design elements of the MAC, the CVC did not meet the conditions for representative mechanisms to facilitate participation of community members.

Discussion and conclusions

The MAC was a network of people committed to managing the shared waterway for the challenges of climate change that were already being experienced, and to support the future of the coastal communities along the shores of the Bay of Fundy. MAC members overtly set out to enable 'non-sector community-based perspectives' to influence the planning, management and decisions for southwest Bay of Fundy. The MAC was established as a specific effort to move away from what the MRP members regarded as the conflictual politics that had resulted from the existing formal representative approaches to marine governance. They sought to find a participatory and deliberative alternative, in what they thought to be an apolitical, deliberative environment. MAC members were driven by good intentions; they exhibited good

working relationships, trust, expertise and persistence. MAC members clearly experienced tensions with the rules and structures they had developed, and yet struggled to address these tensions. MAC members' evaluation of the initiative showed a high level of persistence and hope, despite little progress towards the objectives they had set. It was, as one member concluded, worth a try: 'But you sort of think ok, let's just give it a go. Let's just see how it goes. But it didn't. There you go.' While they were able to voice the tensions and continue to puzzle over what form a participatory process could take, without the conditions for legitimacy they were unable to address the legitimacy gaps.

How, if at all, did the SES participation norm influence the MAC?

I have shown that the MAC members' *Preferred Future Report 2009* model of community governance was strongly influenced by the three axioms of the participation norm. Had the *Preferred Future Report 2009* model been implemented after the deliberation phase, the influence of the participation norm on the MAC would have been specific and direct, as it was clearly designed with participatory intentions and processes. While this was not the case, the MAC members' commitment, aspirations and intentions carried the participation norm through to its structures and activities. The MAC was constructed to create space for alternative aspirational politics of direct participation of the 'community', in line with the promise of the participation norm. The structures of the MAC, in particular the 'hats off' rule, sought to separate representative mechanisms in favour of the ontological participation and deliberative axioms of the participation norm. The 'hats off' rule was a clear instance of privileging direct participation over representative mechanisms, reflecting the suspicion of representative mechanisms at the heart of participatory democracy theory. Further, despite the members' aspirations for direct participation, the MAC structures ended up relying on representative processes to deliver participatory aspirations, also consistent with the SES participatory norm, as established in Chapter 4.

Not only were the axioms of the SES participation norm present in the MAC, but the MAC was also held to lack legitimacy and did lead to people's disillusionment with the process. Furthermore, there was evidence that the MAC did not have connections with potential constituencies. This case study then supports the proposition at the close of Chapter 4 that the influence of the SES participation norm will lead to lack of legitimacy in a larger populous polity and will be implicated in disillusionment. The appeal and drive of the

norm for MAC members obscured the inevitable presence of representative mechanisms, and this was also implicated in the lack of legitimacy the MAC process suffered. Equally concerning, the impact of the resort to unacknowledged representative mechanisms in the MAC was to prohibit substantial connection with the actual communities of Southwest New Brunswick. This was the clearly the impact of the 'hats off' rule, which denied the intrinsic link between participation and representation for participants with professional marine-related responsibilities. It was also, however, the impact of the reliance on a few hand-selected 'community-at-large' representative as proxies for the diversity of citizens of the broader polity.

There are two concerning implications of this lack of connection with constituencies and citizens. Firstly, it means that the MAC was not just lacking in democratic legitimacy; it was anti-democratic in that it excluded rather than included people – a serious problem in a democratic nation. Secondly, from an SES adaptation perspective, it means that the MAC failed to facilitate the conditions for enabling social adaptation to changing environmental conditions. This means the SES participation norm mitigates against the achievement of SES objectives. These are concerning findings and point to the significance of being able to identify the norm and how it influences institutional rules and practices.

What does the participation–representation lens explain, if anything, about the democratic legitimacy of the case study initiative?

In practical terms, a deliberative 'non-sector community-based perspective' was to be created through the three structural/structuring elements of the MAC:

1. Secretariat appointment of members;
2. 'hats off' deliberation rule; and,
3. the community values criteria (CVC).

In an effort to avoid traditional representative processes, these three elements functioned to shape the participation–representation relationship between the individual MAC members and the 'community' whose perspective was to be created by the MAC members' deliberations. The appointment of members, sourced

from within the existing network of actors and authorised by the Secretariat, prohibited any community-based authorisation processes. The intention of the 'hats off' rule was to disrupt the formal authorisation of MAC members but proved to be an ongoing dilemma. The lack of authorisation processes between community members and 'community-at-large' members also meant a lack of institutional processes for dissent and exit from the MAC. The lack of authorisation processes also led to the absence of accountability between community members and MAC members. The CVC, built on solid participatory foundations, was converted into a rating tool for use by a small non-representative and non-accountable group that, in the end, created a problem that contributed to the inability of the MAC to produce advice. As the institutional architecture of the MAC, these three structuring mechanisms moved MAC members away from any connection with potential cohorts, and, therefore, created legitimacy gaps.

By using the participation–representation lens to examine the MAC's institutional structure, the problem of who speaks for whom, and how this could be justified was brought into relief. The MAC rules did not explain how individuals with 'knowledge and expertise' required for deliberation were authorised, or even by whom that authorisation might be exercised. This means that while we might know who was speaking, we cannot tell for whom, and we are a long way from being able to determine if potential constituents authorised the representation of the voice, values or interests exercised through the MAC. Lacking the language of the conditions, and under the powerful influence of the participation norm, MAC members struggled to articulate this legitimacy gap. While the MAC institutional rules may have produced a simple approach to generating 'non-sector community-based perspectives', when analysed using the participation–representation lens, it can be seen that the MAC structure and operational elements did not produce a democratically accountable approach.

It was intended that the MAC would comprise individuals with expertise and knowledge, free from formal representative political processes, to deliberate on community perspectives. It was not the intention to sever the democratic legitimacy of the MAC. My examination of the MAC using the analytic lens shows, however, that the severance of democratic legitimacy was nevertheless the effect. Under the influence of the participation norm, MAC members created an initiative with a number of legitimacy gaps. Without a clear focus on authorisation, accountability, and dissent and exit, the MAC operated as an elitist process in

the guise of a deliberative, participatory initiative. Under the influence of the participation norm, existing and recognisable representative mechanisms were purposefully avoided, separating participation from representation. The MAC's structure and design were ultimately representative but not in ways that could facilitate the participation of community members in generating the 'non-sector community-based perspectives'. In this, the MAC reflected the critiques of participatory democracy theory as well as demonstrating the legitimacy gaps inherent in the SES governance theory established in Chapter 3.

Finally, the absence of the dissent and exit condition in the MAC case posed a significant problem for the MAC. On considering this finding, I suggest that strengthening the dissent and exit condition may lead in unexpected directions, as the function of this condition is to reformulate the very assumptions about who might be or might become a potential constituent, and which forms of representative mechanisms are acceptable, and which are not. This means that if the conditions are firmly in place and delivering greater levels of throughput legitimacy, the agenda, focus and activities of a participatory initiative may change significantly from the founding purposes. If so, this will bring additional challenges to governing the ecosystem and indeed may broaden the scope of governance, as theorised by Kooiman (2003). The shift in Forum focus from improving communications to community development and social impacts indicates the dynamic potential for participatory initiatives to move in unexpected directions. The implication of this is that participatory governance may trigger unexpected social and political changes, and if so ensuring strong democratic legitimacy of such initiative becomes an even greater imperative. While the notion of shifts in social and political objectives is aligned with the drive of SES governance and the associated participation norm, it is not yet clear that communities are ready for this level of dispersal of governance influence (e.g. Fudge 2018; Waters and Barnett 2018), and the case of the MAC supports this supposition.

Chapter 7.
Community and industry governance of salmon farming in Macquarie Harbour, Tasmania

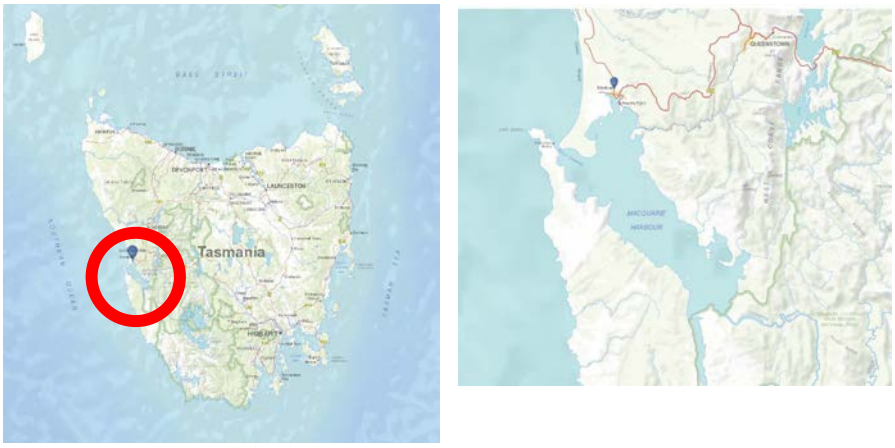
This chapter presents the second of two case studies of citizen or community participation in marine governance. Here I examine a community–industry initiative to provide the opportunity for community perspectives to be considered in the expansion of salmonid aquaculture in an iconic Australian waterway, Macquarie Harbour in the Australian island state of Tasmania. The initiative was put in place to enable 'the community' and the aquaculture industry members to consider how to maximise positive impacts and minimise negative impacts for the community of the expansion. The initiative, referred to as the Forum, is an example of emerging forms of hybrid network governance that directly connect civil and private actors in negotiating with respect to the balance between non-state civil and private interests. Hybrid forms of governance are growing in significance for addressing matters of shared marine use (Vince and Haward 2017).

The unit of analysis for the case study was 'the Forum', that is, the regular roundtable meetings of community and industry members. At the time of writing, the Forum had been meeting for four years, including during a period in which a significant fish overstocking resulted in severe and negative environmental, industry production, legal and social acceptability impacts. This chapter is not designed to analyse the overstocking event or its impacts; rather, this event is treated as part of the trajectory of the Forum. The experiences of the Forum members during this time are instructive in that the extreme event brought into relief some of the institutional tensions, limits and challenges of the Forum as a participatory industry–community governance process.

Case study context: Macquarie Harbour, Tasmania, Australia

Macquarie Harbour (the Harbour) is a sheltered estuarine embayment and the second largest natural harbour in Australia, with a surface water area of 276 km^2 (see Figure 7).

Figure 7: Macquarie Harbour (encircled in red and detailed in right hand image) the marine ecosystem at the centre of this case study



Images from Land Tasmania, Tasmanian State Government https://maps.thelist.tas.gov.au/listmap/app/list/map

Macquarie Harbour lies within a high rainfall catchment comprising temperate eucalypt forest and cool-temperate rainforest (DPIPWE 2004). The hydrology of the Harbour is complex, shaped by the combination of a deep central basin, a narrow shallow oceanic inlet (known as the Hell's Gates) and in-flows of two major rivers controlled by hydro-electric power generation up-river (Ross et al Sept 2017). These features and the impact of high rainfall and distinct seasonal wind, tide, atmospheric pressures and oceanic currents result in a stratified estuarine water column. This comprises a deep, slow-moving bottom layer naturally low in dissolved oxygen and subject to oxygen 'recharge' from ocean in-flows; a mid-bottom layer down to 15 metres susceptible to oxygen depletion and slow to recharge from either oceanic or freshwater in-flows; and a surface layer down to approximately 5 metres depth of fresh water from river in-flows (Ross and MacLeod 2017). The benthic system is also low in flora and fauna diversity and abundance due to low light penetration of the dark tannin-rich surface water (EPA 2018). Macquarie Harbour, then, is commonly

described as a complex and unique ecological system (Ross et al 2017). It is also a dynamic social system that is intimately connected with the marine ecosystem.

The Harbour has been an important waterway for human societies for at least 35 000 years (Natural and Cultural Heritage 2017). The Harbour, known by Tasmanian Aboriginal people as Meebberlee, was part of the traditional Country of the Mimegin and Lowreene people of the northwest nation, and a site within the Aboriginal trading and ceremony system along the southwest–northwest coasts of Tasmania (Alexander 2006). In 1821, British colonists established a penal settlement, timber supply and port authority on the shores of the waterway. Despite active resistance, both the southwest and northwest Aboriginal nations were largely decimated by 1834, leaving only a few Aboriginal families remaining in the area (Ryan 2012).

The town of Strahan, on the Harbour shores, was established in 1877 by non-Aboriginal settlers as a shipping port for the harvest of unique Huon pine (Kerr and McDermott 2004), and for copper, silver and gold mining in the nearby mining town of Queenstown until 2014. In the early 1980s, the Harbour was the site of an environmental campaign to protect the highly valued Franklin River, the unique Tasmanian cool-temperate rainforest ecosystem and significant Aboriginal cultural artefacts (Crowley 2003). During this fierce fight, economic development and conservation values were pitted against each other, polarising not only Tasmanians but Australians more broadly, and created important political ripple effects internationally (Hutchins and Lester 2006). In 1982, UNESCO listed the area as World Heritage, effectively scotching the State Government plans for further hydro-electric developments (Mertha and Lowry 2006). Notwithstanding this, active hydro-electric dams are as significant in the Macquarie Harbour catchment as the protected rainforest system. Macquarie Harbour is neither pristine nor fully commercialised, yet it is important for both conservation and commercial values. This is because approximately a third of the Harbour is included in the Tasmanian Wilderness World Heritage Area (TWWHA), and the remaining water is zoned to support 9500 tonnes of cage-grown salmon (EPA 2018). The Harbour supports wilderness-centred marine tourism, salmon farming, commercial fisheries and recreational boating and fishing. The Harbour is also highly valued as a recreational site, for fishing, boating and camping, for both locals and visitors. Tourism, the largest employing industry in Strahan and the local area, is dominated by one very large provider, paired

with a cluster of smaller-scale tourism ventures that depend on the Harbour's wilderness reputation and environmental values (REMPLAN 2018).

Salmon aquaculture is the second largest employing industry in the area with just under 200 people estimated to be employed between the three farming companies, Petuna Group, Tassal Group Ltd and Huon Aquaculture Group P/L (TSIC 2017). Small-scale salmon farming began in Macquarie Harbour in the late 1980s and grew steadily across southeastern Tasmania after a period of market-driven rationalisation reduced the industry statewide to three major companies, Tassal Group Ltd, Huon Aquaculture Group Ltd and Petuna Seafoods Ltd (TSGA 2018). These three companies were joint proponents for an ambitious expansion of farming levels in Macquarie Harbour in 2011 under a collective industry arrangement (DPIPWE 2012). Between approval of the expansion in 2012 and the time of this research in 2018, the proposed expansion of salmon aquaculture farming was implemented, and the Harbour system suffered almost immediate and negative benthic and nutrient effects (Knight et al 2015; Ross et al 2017). Throughout 2016 and 2017, the aquaculture industry tore itself apart with intra-company legal and public media fighting over responsibility for the negative impacts (e.g. Morton 2018; Salmon 2017), and Tasmanian society was shaken by emerging evidence of degradation of the Harbour.

In 2014, the Tasmanian Salmonid Growers Association (TSGA) established and chaired a community–industry forum that operated in this heightened atmosphere. The became known variously as the 'Aquaculture Industry–Strahan Community Forum' (Minutes 2014), the 'West Coast Community0 Aquaculture Advisory Forum' (Minutes 2015 and 2016), the 'West Coast Salmonid Aquaculture Community Advisory Forum' and the 'Strahan West Coast Aquaculture Community Forum' (Minutes 2017 and 2018), hereafter referred to as the Forum.

The West Coast Community-Aquaculture Advisory Forum

In this section I set out a picture of the operations and experiences of the Forum generated from documentation and interview materials. The subheadings in this section represent the themes from the first step analysis of the materials.

The development of a participatory community–industry governance approach

In late 2013, the salmon aquaculture industry association, the Tasmanian Salmonid Grower's Association (TSGA), commenced a trial of ongoing community-based engagement, which continues today. 'Community consultation' was a requirement under the State Government licence for the approved aquaculture farming expansion, although the extent or form of consultations were not (*Marine Farming Planning Act 1995;* Tassal et al 2011). People who were involved at the time reported through interview that the intention for ongoing connection between the industry and the community grew from public consultations for the proposed expansion. The intention to develop ongoing connection with community members was also explained in terms of a growing sense at the time among industry members that the industry operators could improve their understanding of how their operations affected local communities. Paired with this, it was reported that at that time industry members were also seeking to understand how they could improve the positive contribution of industry activities to community development, as reflected in this comment from a founding participant:

> *So we were in an era in our industry where consultation was being discussed openly, where we were critical of the government's consultation processes, at the federal and state level. It was basically consultation after decision, and we didn't want to be replicating that with the process with Macquarie Harbour.* (M-INDUSTRY)

The Forum members confirmed an initial Terms of Reference (TOR) in May 2014, which provided the structure of the Forum, and the minutes show the members of the Forum were the same community members who had been involved in the initial discussions (Minutes March 2014, April 2014, November 2014). Forum members revised the TOR during 2017 and approved new TOR in early 2018. At the time of writing in April 2019, the Forum was still meeting as an active and engaged group.

Purpose and structure

The purpose of the Forum was described in the interviews as two-fold: to provide a means for dialogue between the aquaculture industry and the Strahan community; and to identify common interests and work

together on common concerns (also TOR 2014 and TOR 2018). At the inaugural Forum meeting, the primary focus was on communications regarding the planned process to relocate aquaculture operations from the waterfront in the centre of the town (Minutes April 2014), a longstanding issue at the time for Strahan residents because of its perceived impact on the tourism industry. By the time the TOR were confirmed in April 2014, the purpose and scope had broadened to community development and maximising the potential impacts of an expanded industry for the community, alongside the communications and information sharing piece (Minutes November 2014, November 2015). Table 16 shows that the 'topics of interest' scoping statement in both the 2014 and 2018 TOR included social, economic and also ecological concerns.

Table 16: 'TOR Topics of interest' that represent the scope of the Forum. The most regularly discussed topics as reflected in the Forum minutes as highlighted in bold text.

TOR 2014 **'Topics of interest for the group may include, but are not limited to:'**	**TOR 2018** **'Topics of interest for the group may include, but are not limited to:'**
Water quality monitoring results and broader implications	Water quality monitoring results and broader implications
Socio-economic opportunities	Socio-economic opportunities
Conservation opportunities	Conservation opportunities
Regional economic impacts	Regional economic impacts
Marine debris clean-ups	Marine debris clean-ups
Harvest schedules	Harvest schedules
	Noise and odour [of aquaculture operations]

Relocation of the Huon Aquaculture and Tassal shore-based facilities Noise and odour [of aquaculture operations] Recreational fishing Research projects **How the companies can be good neighbours and relevant, meaningful members of the community** Other matters of interest to stakeholders	Recreational fishing Research projects How the companies can be good neighbours and relevant, meaningful members of the community Other matters of interest to stakeholders

According to the minutes, the most consistent items were harvest schedules (relevant to recreational use of the water, truck activity in the town centre); employment numbers (how many local people are employed compared to how many 'drive-in/drive-out' people); marine debris clean-ups; the establishment of childcare in Strahan (as socio-economic impacts); and truck movements through the town of Strahan (as a 'good neighbour' concern). These are shown in bold in Table 16 (above). The impacts of aquaculture operations on water quality is listed in each of the TOR, and first tabled in 2014 (Minutes April 2014). Water quality was not revisited, however, until well after evidence of severe degradation of water quality in the Harbour began to emerge in the public media (e.g. see Minutes December 2016, June 2017, September 2017, December 2017, April 2018).

In both TOR, two criteria set the rules for Forum membership that introduce a tension between an aspiration for direct community participation and practical representative mechanisms that prescribe who can actually participate. Firstly, the overarching membership statement is expressed as follows:

> *The Community Advisory Forum will be open to any stakeholder interested in productive engagement with the aquaculture industry operating on the west coast.*
>
> Structure/Membership, TOR 2014

This openness rule signalled an underpinning Forum value, for direct self-presentation (participation) for anyone from 'the community' with an interest in aquaculture operations in the broader local government area (i.e. 'the west coast'). This underpinning value reflects the core precept of participatory democracy discussed in Chapter 3 (pg. 61). The membership criteria for the Forum are set out in Table 17 below.

Table 17: TOR membership criteria as listed categories and the 'Ideally' clause (in bold)

TOR May 2014	TOR April 2018
‘The Community-Industry Forum will be open to any Strahan resident interested in productive engagement with the aquaculture industry.’ ‘The Forum will draw participants from the following:’	‘Membership of the Community Advisory Forum will be open to resident stakeholders interested in productive engagement with the aquaculture industry operating on the west coast.’ ‘Ideally, participants will be drawn from across the community, including:’
People who live and work in Strahan Young people (under 25 years old) Tasmanian State Parks and Wildlife [Tasmanian State Government Department] West Coast Council [local municipal government] Tourism sector Recreational water users (including fishing) School Sporting and recreational groups Progress and development groups	Young people (under 25 years old) Parks and Wildlife [Tasmanian State Government Department] West Coast Council [local municipal government] Aquaculture (1 permanent representative from each company, and other specialists invited as required) Tourism sector Recreational Fishing Group Strahan Primary School Active Strahan[16] Strahan Streets Working Group[17] Community health

As can be seen in Table 17 (above) the rule of openness was tightened further in 2018 to include a stipulation for residency. The overarching membership statement also signals a second underpinning value for ‘productive engagement with aquaculture industry’. This value is expressed as a rule that requires acceptance of the industry’s presence in the Harbour for a person to be included in the Forum’s definition of ‘the community’. The productive engagement rule immediately modifies the openness rule. It also circumscribes the allowable interests (those that accept aquaculture operations) and defines ‘the community’ as those who are committed to ‘productive engagement’. The second membership criteria appeared in each TOR as listed categories or interests that further define ‘the community’ for the purposes of the Forum. In the 2014 TOR, these categories were relatively open, i.e. ‘sporting and recreational groups’ and ‘progress and development groups’ but were replaced in the 2018 revised TOR with

[16] Local health and fitness group

[17] Local activist group focused on ensuring safety and amenity re streets in the town

specifically known groups active in the area, for example ‘Active Strahan’[18] and the ‘Strahan Streets Working Group’[19]. The groups listed in this way introduces specifically representative mechanisms alongside the (modified) openness rule, but in the 2018 TOR retained the commitment to ‘openness’ and self-presentation through the ‘ideally’ clause (in bold in Table 17 above). The two modifiers to the ‘openness’ rule and value, then, introduce representative mechanisms into the foundations of the Forum that limit who is in and who is out of the Forum and sit in tension with the participatory intention and underpinning value.

Forum meetings were held regularly across the four years but increased in frequency and reliability after the community members took secretariat control in late 2016. The first TOR (2014) stipulated that the Forum meet twice per year, increased to three per year in late 2014 (Minutes November 2014) and that each meeting be followed with a community newsletter. People reported a drop-off in aquaculture industry commitment in 2015 and 2016 and the minutes show that only two meetings were held in each of those years. It was in this period, 2015–2016, that the negative environmental impacts of the rapid increase in tonnage of salmon in the Harbour became publicly available (Salmon 2017). For some interview respondents, this context explained the lack of engagement with the community members during this period:

> *I suppose the challenge for us is forthright transparency with the fish farms in a heightened media environment. That would be my summary.* (M-COMMUNITY)

For others the pull back from the Forum revealed a shallowness to the commitment of the aquaculture industry despite assurances otherwise:

[18] An established health and fitness group

[19] An active group of citizens focused on addressing the safety and driving standards of large trucks transiting through the town

> *I think the fish farmers started to know that early on that it was creating issues, but they didn't really own up to it because it affected their money-making model of how many fish they could have in the Harbour and what was sustainable.* (M-COMMUNITY)

In 2017, the Forum members took control of the Forum and again increased the meeting frequency to hold the industry more accountable:

> *And I remember getting increasingly frustrated that the aquaculture companies had an obligation to consult with the community, but these meetings were only being held when it suited them, when it suited [NAME]. And I remember sitting out there saying 'look it's about time we had another meeting let's make it happen' and then I went to the meeting and raised my concerns. About it shouldn't be ad hoc and we need it to be perhaps more regular and more responsive.* (M-COMMUNITY)

Responsibility for organising, paying for, chairing and generating the minutes of the Forum had rested with the TSGA. In the 2017 revision of the TOR, chairing responsibility was shifted to community members (TOR 2017) as an additional strategy to hold the industry members more accountable. People explained in interview that at the end of 2017 a revision of the TOR was prompted by the increased attention and attendance at the Forum of anti-aquaculture campaigning interests from outside the west coast community. In the heightened environment of 2016, Forum members explained they thought the productive capacity of the Forum was undermined by the original 2014 rule of openness. This was because Forum members had no way of dealing with people who didn't live in the community but whom they feared were attending to disrupt 'productive engagement' (TOR 2014) with the aquaculture industry:

> *It got tricky at one point. Somehow, and I don't know how, this person turned up ... She set up the laptop and started taking notes. Very odd ... And she was pulled up on that and then asked to introduce herself and stop doing that [taking notes].* (M-COMMUNITY)

> *And in the extraordinary circumstance the Forum becomes a tool, another part of the fight. And it devalued what it was. It caused angst between people in the community. We had chairmen's change [sic], people resigned* [like] *secretaries [sic], it just was a horrible situation*

> *… So the terms of reference for the community forum got revised after that meeting – there was a 'we can't let that happen again' moment. We needed to revise the terms of reference and what was really good was that they got revised, two people within the community drafted them, and everybody agreed. There was a unanimous consensus that we can't let that happen again.* (M-INDUSTRY)

This problem of openness also triggered concerns about the Forum's transparency and capacity to represent the broader west coast community. To deal with these tensions, Forum members introduced the following additional six changes to the original TOR:

- The 2014 statement of independence requiring members to place 'community interests' above those of each individual Forum member's interests was removed;
- A six-monthly membership process was introduced to make clear how people could join the Forum, and ensure regular opportunities for new members to join;
- A process for including the broader residential community in decisions and activities of the Forum was introduced;
- The membership list was tightened to name specific established interest groups;
- Attendance rules for the general public participation in the Forum were introduced; and
- The number of meetings per year was increased from bi-annual to quarterly.

Perspectives on the operations and activities of the Forum

In this section, I set out the themes that reflected participant and non-participant perspectives on the strengths, achievements, limitation and challenges of the Forum. This section describes how the Forum operated based on reports from those who were involved and so provides insight into how the principles of the Forum and the actual processes and relationships of the Forum came together.

Practical positive changes

People reported through interview two positive and practical changes that resulted from the Forum. Firstly, in response to the ongoing concern about marine debris, Forum members introduced annual marine debris clean-ups. In addition, the aquaculture industry established a marine debris hotline to deal quickly with debris in the Harbour (e.g. Minutes March 2017, June 2017, April 2018). People reported a positive shift in aquaculture industry attitudes regarding marine debris as a result of this activity. Secondly, the Forum was the site for the development of a community–industry protocol and agreement on truck movements through the town that addressed community members' concerns about noise, volume and unsafe driving practices by commercial trucks through the town (e.g. Minutes April 2014, February 2015, November 2015, December 2017).

Control and influence built through the Forum

Several people reported that a transition in control of the Forum from the aquaculture industry to the community members represented a significant achievement. At some point in 2016 the community members took over chairing and providing of minutes for the Forum and took a directive role in putting together the newsletter. This positive outcome was reported to have been triggered by a negative one – an emerging pattern of cancellations and rescheduled meetings during the height of the negative media storm:

> *… Then they were mucking around, the dates of the meetings kept changing, we'd sent them a couple of fairly rude emails – 'Hang on we haven't had a forum for a while'. So I rang up and said 'Why don't we chair this out. We'll make this a community thing'.* (M-COMMUNITY)

Notwithstanding this, people also reported the fact that once the community members took control of organising the meetings, the industry members showed up and remained committed to the Forum even in the face of personnel changes and the challenges confronting the aquaculture industry:

> *I think you'd be pretty lucky to have the mining company's community forum, where they go (sic) the level of community ownership that this lot are allowing to happen. So I think that's something I'm proud of them about and that's why I spend some energy on this.* (M-COMMUNITY)

Good faith, trust and robust relationships

The sense of the aquaculture industry being part of 'the community' was encapsulated in the notion of aquaculture as a 'good neighbour' that came through the interviews. People reported a sense that the Forum had resulted in aquaculture industry becoming part of the life of the community:

> *If we've got people who've got a company or an industry that works around here let's make sure it does good for us and for everyone. And if you got neighbours, let's work with your neighbours, and simply put they are our neighbours to some extent … We're never all going to be perfect and they'll do some things in their house that I don't particularly like, or suit the way I live. But we got to rub alongside one another.* (M-COMMUNITY)

Several people identified that the trusting relationships built among Forum members was a key strength and achievement from the process. The relationships were described as robust and not always easy but sufficiently trusting that debates, problems and disagreements could be worked through without either party walking away from the Forum and without either party betraying the other:

> *… and so there is strength and a bit of security for us in that I don't think that they'd throw us under the bus if we exposed our cards to them. There is a real reliance on that trust, but they do have a lot of power, underestimated.* (M-INDUSTRY)

This remained the case even through the period of 2016 and 2017 when community members learnt of the water quality problems and that information had been withheld. A key quality of the trust appears to be a willingness to stay at the table and remain in communication, rather than trust that each party would be always proactively truthful, as can be seen in the quotes below:

> *And I think the Community Forum has worked well from an explanation point of view. I think they're getting more honest. But then – I don't know. And how do you know. But at least they're letting people ask, they're not clamming up and they're not saying 'You don't need to know that' or 'we're not doing that'. And I have to say that they've been pretty good at putting their hands up and saying 'look that was us'.* (M-COMMUNITY)

The strength of this kind of trust appeared to keep the industry members at the table. Members reported the significance of this for them was continued access to information on issues of interest and the ability to tackle critical issues even in the face of withheld information; for example, in the meetings after the dissolved oxygen problem became public (e.g. Minutes December 2016. March 2017, June 2017):

> *Look it's valuable. It certainly is valuable, and I do think that the companies in general – I don't know, but I think they think they can get around them, the forum members, a bit. In my mind the saying is 'keep the bastards honest' and I do think that that [Forum] helps with doing that. I really do. But they're trying to get around, I think they're trying to do a few underhanded things without anyone knowing it at times.* (M-COMMUNITY)

The particular kind of trust might be thought of as a norm of good faith: a preparedness to face difficult issues and trust that the Forum would be largely a safe space even in the face of experiences of 'betrayal'. This norm of good faith suggests a finely balanced flow of power within the Forum, as can be seen in the different perspectives reflected in the following quotes:

> *The trouble with the forum is most people of the community forum don't feel, as an individual, that they can get up and push – like you got to get up and say your piece in front of the fish farms thinking 'well what sort of reaction am I going to get'. And because of the negative press that's been happening we haven't wanted to – we feel maybe if we said 'look we want you to start putting a couple of dollars into a major project' in the end might they might say 'look Strahan – it's just too hard we're out of here'. It's a matter of how far you go.* (M-COMMUNITY)

> *If we – to me – if we upset that community: if we did the wrong thing in the environment; or if we killed somebody on the road – if we really upset them, they, in the media, could throw us under a bus. Just, you know. And their strength would be in a group. It's not the individual that we upset – we in this Strahan community are saying 'this; this; this; this; and this is wrong with the salmon industry, this confirms that Macquarie Harbour is a train wreck and that industry needs to get out'. The cost to us as a business, that would shut us down.* (M-INDUSTRY)

Information sharing – a strength with limits

A number of members reported that they valued the Forum as a way to get good information about the industry and check on 'the word around town' (see also for example Minutes November 2014):

> *I think that's probably when we see the value of a community forum. When that information flow is coming from the [COMPANIES] 'this is happening, this is what we're actually doing, and this is what our plan is moving forward'.* (M-COMMUNITY)

The information-sharing function, however, also had clear limits. An important limit lay in the lack of recourse within the Forum structure to hold the aquaculture industry members formally accountable for information-sharing. Forum members' awareness of this limit has been touched on in the previous sections (see discussion of *good faith norm* above). The most obvious material demonstration of this was that information about the negative ecosystem impacts was withheld from the Forum members right up until it became clear from the public media that something was seriously wrong:

> *I particularly felt very betrayed. Because as you know, we've been giving up our time going to community consultative meetings, and the first time we hear that they have any concerns – they didn't even have the courtesy to tell us they were on Four Corners and give us a heads up to what, first time here is we have to watch it on Four Corners. So that's completely betraying.* (M-COMMUNITY)

Another quite subtle limitation to the information-sharing function was revealed through the interview, the perception of 'levels' of access to information. Some people reported the sense that some in the Forum knew more than others and it was not clear why this was the case, or how and when information was shared outside the Forum meetings:

> *Some of them (Forum members) seemed to know about what was going on, but the members, others, didn't have a clue … You've got people that are fairly high up that are friends with people in Hobart, that do actually hear a bit more. Then you've got that middle-level that have sons or daughters working at the fish farm and whatever. And then you've got what I call the lower level … I call it a three-tier level.* (M-COMMUNITY)

Observations from others indicate they associated different ‘levels’ of knowledge with trust building through key relationships:

> *And I think there’s a credit to [NAME], think [NAME]’s been pivotal in keeping that information flow in between forums really – with what's going on and being very transparent and honest. I think [NAME]’s really helped keep that relationship grounded.* (M-INDUSTRY)

However, for others this dynamic had an inadvertent negative effect on their perceptions of transparency, information-sharing and the efficacy of the Forum:

> *There's various stages on that committee that I thought ‘oh this is a waste of time. I'm going to leave’ … because how can I make an informed judgement? And they're asking your opinion when you haven't got all the facts and you’re just in a meeting and you haven't even heard about what they're talking about.* (M-COMMUNITY)

Action on community development outcomes

The slow pace of action for community development initiatives concerned a number of people who were interviewed. Notwithstanding some achievements like health services in the short term, reports in the interviews also revealed that despite effort none of the hoped-for major community development initiatives had been achieved:

> *The fish farms promised all this employment, and oh well it was going to do this and going to do that, and it didn't deliver.* (M-COMMUNITY)

> *Well they said they'd be interested in supporting a major project but that's as far as it's ever got.* (M-COMMUNITY)

Public media – a challenge to Forum good faith and openness

People reported that the public media attention on Macquarie Harbour during 2016 and 2017 created tensions for the Forum, and in some instances risked undermining the principles and intentions of the

Forum. Firstly, their comments and work at the Forum being taken 'out of context' by the media threatened openness and information-sharing commitments:

> *Because you know we're all a bit gun shy about media. What you want is to be really open and say 'Yeah'!* (M-COMMUNITY)

Closely related to this, people also expressed concerns that the drivers of the public media conflicted with the objective of the Forum, that is to create trusting relationships within which negative impacts for the community could be dealt with and positive impacts could be maximised (the good faith norm).

People also explained that the public media attention drew an increased level of attendance at the Forum, but not only from local residents. One incident, recounted by a number of people and discussed above, indicated that a non-local person appeared without introduction and took notes on the discussions. People explained this was unnerving and the effect was that people suddenly felt the safety of the Forum; that is, the good faith norm, was at risk:

> *That made a couple of those Forums really uncomfortable in that we couldn't be open with the room – like we would normally try to be as open as we could be. And then with in the Strahan locals it got really heated: 'Who invited them in?' … And that's really hard in that in a community forum you'd like to think that the door can be swung open that people can walk in there whether you're a new resident, old resident or somebody who's visiting town, can walk in and sit and listen – maybe I'm being naïve.* (M-INDUSTRY)

At the same time, people acknowledged that given the limits to industry trustworthiness (discussed above) the public media remained essential in the broader context; that is, outside the specific interests of the Forum:

> *And then, the only reason we knew how badly it failed, apart from the environmental site stuff, was leaks. It was leaked to the ABC[20] basically, it was how we found out.* (N-PROF)

[20] ABC – Australian Broadcasting Commission, national public media broadcaster

No consistent engagement between the Forum and the local council

Nearly all respondents voiced concerns about the lack of consistent engagement between the local municipal government (West Coast Council) and the Forum. Forum members reported surprise that the Council did not regard the Forum as an opportunity for direct productive connection with the aquaculture industry:

> *But I think that conduit back to Council for not just our industry, for the Strahan community would be fantastic. It could be a real connector.* (M-INDUSTRY)

Formal Council representation was a feature of the initial meetings, with the then-Mayor endorsing the process and Councillors attending in a formal capacity (e.g. see Minutes April 2014, February 2015). At some point, the relationship between the Council and the Forum changed and the links between Council officers and the industry representative petered out. It is not clear from the available data when or why this happened. Subsequent to the extreme overstocking event and dissolved oxygen problem in 2016, relations between the Council and the Forum were renegotiated, with a local Council member taking the community chair by agreement of the Forum members (Minutes March 2017). Later in that same year, the Council again withdrew from the Forum by withdrawing authorisation of the Councillors to represent the Council. This left Forum members who were also Councillors acting in individual private capacities. In their formal explanation for this research, a Council representative explained that the Council had formed a different view on how they wished to engage with the aquaculture industry and that the Forum approach could not capture the range of Council interests in the aquaculture industry operations:

> *As Council we expect – as the local government authority representing the 4000 voters and ratepayers, that we would have a rock solid relationship with the industry. With the major industry like we do with mining. We have that with mining. The aquaculture seem to almost be happy with this strange position, where they tell the community forum and then somehow that's relayed back Council.* (Local Council Representative)

Informal connections between the Forum members and non-Forum residents

There were no formal mechanisms in place to guide engagement between Forum members and other residents. People explained this in terms of how that particular community works. Key to the explanations were two characteristics, that people know each other in this small town and will talk about their interests, and secondly that in this community some people liked to be involved in community activities and others did not:

> *Over the years the community have got a bit of an angst at times saying 'oh how come these people are on it and we can't get a say' So they've actually opened it for invitations so they actually have to say 'look I want to go and I go to [CHAIR] and say 'oh this person wants to come' and we go 'yeah that's fine'. And so they've done that, but that wanes off. It's often when things are happening and they (community members) want to know what's going on. But a lot of those people who want to join and think that'll be great, they come to two meetings and they're gone again. I think it's just the fact that they want to know what's going on.* (M-COMMUNITY)

Despite this account of how the community works, other people who were interviewed expressed concerns about the lack of transparency that resulted from the absence of formal mechanisms:

> *And I was, I am worried that perhaps meetings are still almost held in secret. I think the community knows there's a Forum, some community members know there's a Forum. But I don't think they know how they would be invited to participate. Or if they could put up their hand.* (M-COMMUNITY)

Interviews with non-member residents indicated that people knew about the Forum in two circumstances: if they had a direct personal connection, like a friendship, with a Forum member or if they were a part of a formal association that had a representative attending the Forum. As noted in the beginning of this section, the TOR revisions in 2018 introduced specific clauses to address this lack of accountability to community members, and to clarify and explain the process for gaining membership of the Forum.

Applying the axioms of the SES participation norm to the Forum

In this section, I address the first case study research question: (1a) How did the dominant conceptualisation of participation influence the structure and activities of the participatory initiative (if at all)? (i.e. the dominant SES participation norm as identified in Chapter 4)? The purpose of this analysis is to understand the influence of the SES paradigm in actual instances of marine governance and so problematise notions of participation in the applied context. As in the previous case study, I did this by setting out my analysis of the activities and structures of the Forum using the three SES axioms (see Chapter 4, pg. 100) as a subheadings.

Participation is ontological (Axiom 1)

The idea that the Forum as a community–industry relationship was an essential aspect to governing the Harbour resonates strongly with the axiom that participation is ontological. At the core, the Forum was designed to enable aquaculture industry representatives and people who lived in the Strahan community to work on shared goals regarding the impacts of expanded aquaculture activities in the Harbour. For such an endeavour, community participation is essential in an instrumental way – shared goals cannot be generated by a single party. The aquaculture industry's interest in experimenting with the Forum as ongoing and more than mere communications paired with the community receptivity and commitment to the Forum reflect this axiom. As such, the Forum structure resonates with Axiom 1 that social processes are essential to how marine social-ecological systems are governed, despite no direction and specific articulations of this axiom in the Forum materials.

Institutional power is dispersed (Axiom 2)

The assumption that power is dispersed across a range of actors underwrites the design of the Forum in a similar manner as for Axiom 1 discussed above. Both actor groups, community and industry, embraced the notion that ongoing engagement between the local community and the industry was an important aspect of governing the Harbour from the earliest meetings. The strong interest and sense of commitment and

potential that emerged in those early meetings indicated a common sense that some aspects of sharing uses of the Harbour belonged with the civil actors, or the community. This in turn implies that the actors regarded governance as comprising more than only the formal legislatively based government regulation of the aquaculture industry. Viewed in this way, the Forum can be understood as an experiment in a form of hybrid governance (*sensu* Vince and Haward 2017). Few direct references to the dispersal or sharing of power appear in the Forum material. I suggest that the norm of 'good faith' discussed earlier is a clue that the participants regarded the Forum as something more substantial than only information provision. Also discussed in the previous section, members' accounts pointed to their awareness of the Forum as a relationship of shared or dispersed power. This understanding of the power relations of the Forum may explain, for example, why the industry members continued to turn up and show commitment to the Forum after 2016 when the risks to their social acceptability were at a high point and they were not compelled by the formal regulations to engage with their communities. It may also help explain why community Forum members continued to turn up even though they did not trust the industry members to be forthcoming and had a number of examples of the lack of trustworthiness of industry members actions or contributions to the Forum.

Governance is social (Axiom 3)

The precept of this axiom is that the design of a governance institution must enable the development of social resources as the primary mechanism for governing the shared resource (see Chapter 4). The Forum reflected the precepts of this axiom in that social processes were fundamental to the structure and operation of the Forum. The notion of neighbourliness as the means by which sharing the Harbour, sharing the benefits and solving on-land problems would be delivered is a standout example in the case of the Forum. Similarly, 'good faith' relationships as the basis for trust and informal connections between members and non-members also reflect this SES governance axiom. The robust working relationships, the good faith norm and neighbourliness were social capacities the participants felt to be significant achievements of the Forum and worth protecting to ensure the continued effectiveness of the Forum. As with the other two axioms, direct references to the Forum as a governance process were not evident in the material. However, the Forum as a hybrid community–industry approach to governance was built around

social processes and social resources as the basis for problem solving and adjusting each other's behaviours.

I suggest this analysis shows that the SES norm of participation was a powerful if indirect influence on the Forum members. Further, the Forum was clearly defined as a locally based enterprise, a strong characteristic of the SES participation norm. Using the frame of the SES participation norm is useful in understanding the institutional structures and activities, as well as pointing to some of the limits of the Forum.

Applying the lens of participation-representation: authorisation; dissent and exit; accountability

In this section, I address the second case study research sub-question: *2c. What does application of the conceptual lens explain, if anything, about the dominant conceptualisation of participation in the applied context?* The purpose of this analysis is to understand the extent to which the work of the Forum could be argued to represent community interests and perspectives, and so further problematise the conceptualisation of participation at play in the applied context. I do this by applying the lens of participation-representation (Table 15, Chapter 5, pg. 139) to the account of the Forum provided above. The analysis in this section is laid out using each condition as a subheading.

Authorisation

For the first few years of the Forum, authorisation of who was speaking for 'the Strahan community' lay within the Forum structure and not with community members more broadly. Based on the TOR, the rules, the Forum members both defined and represented 'the community'. Their self-authorised participation in the Forum was the representative mechanism for 'the community' to exercise influence on the industry and its activities in the Harbour and determine the best interests of 'the community'. The Forum's authorisation rules were not static, however, and three phases can be discerned: establishment; operation of the Forum via the participation rules; and revision of the TOR in 2017. The revision of the TOR in 2017 adjusted the internal location of authorisation, seeking to relocate it outside the Forum and with the broader community.

In the establishment phase, authorisation of what 'the community' comprised, which people represented 'the community' and how those people would represent 'the community' lay with the TSGA and the independent consultant that initiated the notion of the Forum and organised the first meetings. This initial external location of authorisation was used as an instrumental step in bringing community members together to develop how the industry and the community members might work together. The legitimacy test for such an instrumental approach lies in how authorisation was handed over to the broader community for people themselves to determine the 'what', 'who' and 'how'. In the case of the Forum, the establishment phase appeared to be a temporary form of external authorisation because the decisions about who was to be involved and how the process was to develop were handed over to community members in the first meeting (Minutes March 2014). In those first two meetings in 2014, the initial invited community members and industry members together put in place the rules for participation (the TOR 2014) and this was a move to the operations phase of the Forum.

For the operational phase of the Forum, mid 2014 until at least the end of 2017, the TOR 2014 specified two clauses that defined participation but also established an internally located authorisation. Firstly, the participation clause determined that the Forum was open to 'stakeholders':

> *The Community Advisory Forum will be open to any stakeholder interested in productive engagement with the aquaculture industry operating on the west coast.*
>
> TOR 2014, Structure/membership, pg. 1

In principle, this rule of openness located the authorisation of 'the community' representatives outside the Forum and with members of the broader community. In practice, there was no evidence of a formal, transparent process driven by 'the community' to determine who would participate nor to authorise who could represent 'the community' through the Forum. The connection between Forum members and the rest of the community, as has been discussed, was instead via informal community connections. Further, the rule of openness implied that direct self-representation of any community member was the preferred principle and practice for Forum membership. In practice, there were occasions where community members were reminded of Forum dates and encouraged to attend but this was not consistent nor an overt commitment via the TOR. Further, as noted earlier, non-member community awareness of the Forum was

patchy, suggesting that the information connections had limits to reaching the whole Strahan community. These informal processes are social resources and capabilities that are characteristics of groups and communities and to that extent they can be powerful and meaningful. They are, however, also subject to informal processes of change, and community member efforts to change or renegotiate the representative relationship can be overlooked, unnoticed or even ignored. This also means that such informal authorisation processes do not provide sufficient safeguards for the exchange of power between a citizen, or community member, and the representative, in this case the Forum member.

Finally, alongside the openness rule and self-representation principle, the participation clause contained a 'productive engagement' rule. This rule defined allowable community members and disallowed others and although how 'productive engagement' would be decided remains unaddressed, the implication is clear that it would be decided by the existing Forum membership. The productive engagement rule clearly sits in tension with the openness rule and the implied self-representation principle. The result of this ambiguity is that authorisation in practice remains within the Forum but is couched in a promise of participation.

The second relevant clause, the 'independence clause', stipulated that the 'best interests of the community' must be the focus of the Forum's work:

> *The independence of the WCCAF*[21] *is based on their [members'] capacity to put the best interests of the industry, council and community ahead of all other interests, so that the WCCAF is capable of exercising objective independent judgement. Capacity to act independently and the skill sets and experience of individual representatives to complement the skills and experience of the WCCAF overall are critical criteria in representative selection.*
>
> TOR 2014 Independence, pg. 2

This clause specifies that the existing, self-authorised Forum members will determine and effectively define community interests and then negotiate among themselves which aspects of community 'best interests' were to be traded off for combined 'industry, council and community' interests. The scope and agenda

[21] WCCAF – West Coast Community Aquaculture Forum

items discussed earlier work to articulate shared ‘best interests’ and the authorisation of the Forum scope clearly lay in the hands of Forum members – on behalf of ‘the community’. The authorisation problem here is that it is not clear from the TOR how or if these shared interests were to be validated – that is authorised – with or by the broader community being represented through this clause.

The independence clause contains an additional authorisation challenge in the interplay between the independence clause and the reference to representatives. Across the TOR, the term ‘representative’ was used to define membership rather than a more open term such as ‘community member’ or ‘participant’ and sits in tension with the openness rule of the participation clause. In practice, the Forum membership comprises a mix of formal representatives, including industry representatives, and self-authorised ‘community’ members. Members with a formal representative role are bound by formal authorisation processes that enable them to represent specified group interests. The independence clause, however, insisted that each Forum member must put the of ‘best interests’ of the combination of all members ‘ahead of all other interests’. From the perspective of authorisation, the problem here is that the independence clauses requires that formally authorised representatives may have to trade off their constituents’ interests in order to place the shared ‘best interests’ ahead of their constituencies. It is not clear, for example, how a company representative would be able to subscribe to any ‘best interests’ that were not consistent with company policy. Similarly, Forum members representing the local Council would not be able to bind the Council to actions or commitments without subjecting a proposal to the full Council, or even the ratepayers, for decision. Nor would a Councillor, as a member of the Forum, be able to agree to a definition of ‘best interests’ that was at odds with Council policy. This tension for formally representative members is an example of the chain of representative relationships that conflict with the aspiration for direct participation implicit in the openness rule and the Forum intentions (see Chapter 3, pg. 56). In practice, this tension was at play in the changes in local government’s participation in the Forum as discussed earlier.

As it happened, the independence clause was removed from the TOR in the revision process in 2017, and the term ‘representative’ was replaced with the term ‘participant’ to describe Forum members. There is no commentary in the minutes that explains why the clause was removed, nor why the term ‘representative’ was changed. Regardless of the intention, these two revisions resolved these particular authorisation

tensions. The changes did not, however, solve the problem of how to establish productive links between the Forum and the local Council. This problem remains outstanding and the connections between 'local' and wider polities remains an area for further research, given the continued development of hybrid forms of marine governance.

In the third phase, the TOR were revised in 2017 and the members introduced two new rules that specifically aimed to strengthen the authorising capacity of community members outside the existing Forum membership. Firstly, a process clause was paired with the participation clause that formally specified how people outside the existing membership group could join the Forum:

> *Membership of the Community Advisory Forum will be open to resident stakeholders interested in productive engagement with the aquaculture industry operating on the west coast.* ***Every six months a call for nominations will be made through the industry/community newsletter, with all applications from prospective new members to be put to the next Forum meeting for approval, or feedback to the applicant if not approved. Members of the Forum should be listed in each newsletter, so that they are available to other residents for consultation, and membership shall last for 12 months.***
>
> TOR 2018, Structure/membership, pg.1 (emphasis to the new clause added)

While criteria for approval or non-approval is not specified here, it can be assumed that the three existing criteria apply; that is, 1) residency; 2) interest in productive engagement; 3) representing one of the minimum definition categories of 'the community'. Secondly, the third of the participation criteria was revised with the introduction of the words 'ideally' and 'including'; that is, from 'Representatives should include: ...' (TOR 2014) to 'Ideally, participants will be drawn from across the community, including: ...' (TOR 2018). This revision added flexibility to the definition of 'the community'; that is, it is no longer specifically defined and limited within the TOR. Community members could apply for membership regardless of what they do or do not represent formally or by preference. The 'ideally ...' clause becomes a statement of aspiration and an opening out definition of 'the community' rather than limiting. As such, this allows a subtle transfer of authorisation to people outside the Forum; that is, some ability to define who and what interests comprise 'the community'.

Notwithstanding the positive impact on authorisation of these revisions, two new limits to authorisation are triggered by other revised clauses that acted to maintain control in the hands of existing Forum members. The lack of clarity on the approval/non-approval criteria for membership applications mentioned in the previous paragraph is one point at which a limit is applied. While the definition of 'the community' might have been partially opened to people outside the Forum, in practice, getting approval required meeting criteria that were defined by the existing Forum members. The least transparent of the membership criteria is the 'capacity for productive engagement'. It is not clear how an applicant member could demonstrate this capacity, nor why an applicant might be refused on this basis. A second limit to community authorisation introduced in the 2017 revisions is the 'notice of intention to attend' clause, worded as follows:

> *To ensure that open, honest, thorough and robust conversations can take place, the meetings should be considered private, and any guests wishing to attend should apply to the Chair one month prior. The decision on whether that guest will be invited to attend should be based on what information or support they can provide to the Forum, rather than what they can learn from it.*
>
> TOR 2018, Structure/membership, pg. 2

As discussed earlier, Forum members explained that the TOR revision was triggered by the appearance of non-resident people at Forum meetings. People reported in interview that until then, the understanding that people might turn up the meetings had been an informal and assumed feature of the Forum as expressed in the openness rule (see above). The definitions of 'private' and 'guest' in the introduced clauses are implied rather than specified, but the wording of the second sentence of the clause implies that a 'guest' is a non-resident with specific interests. It is nevertheless not entirely clear, and if paired with the new membership application rule, the terms 'private' and 'guest' could be interpreted as including non-member residents who have not been approved for membership.

In this analysis, using the authorisation condition to analyse the institutional rules helped tease out some of the subtleties embedded in the institutional rules and how they work together. Understood like this, the three authorisation processes and the formal rules worked against each other in unexpected but distinct ways. Using the authorisation conditions as a, lens, then, indicates that in practice, the Forum could not

have facilitated the agency of community members in governance of the Harbour. It did, however, set a foundation for doing so.

Dissent and exit

A number of the Forum members were formal representatives of specified groups, as required in the TOR. For constituents of those representatives, the capacity to dissent from or exit the representative relationships belonged outside the Forum. Other ‘community’ members, however, were not formally representative. This means that to be democratically legitimate, the processes for dissent and exit should have been specified in the TOR, but in this case they were not. Their absence from the TOR is closely linked to the lack of articulated or practical community authorisation processes discussed in the previous section. As established earlier, the general ‘community’ members of the Forum were linked with the broader community informally and this suggests that some level of capacity to dissent or exit from the representative relationship could potentially have been activated through social dissent; for example, by registering objections with the Forum either in person or in writing to the Forum, or through discussions ‘about town’. Although informal community connections can be powerful social resources, they can also change without either party being aware. This means that the informal nature of this link between Forum member and non-member and the implied processes for dissenting and exiting do not provide reliable capacity for non-members to control the terms of the representative relationship between themselves and the Forum community members. The informal basis for the representative relationship cannot be easily addressed if the stakes change or are suddenly raised; for example, as in the divisive impact of the ecological damage due to salmon cage overstocking. This also means that control over the terms of the representative relationship are not clear and are controlled by the representative rather than the person or group to be represented. In this sense, the informal links are insufficient to guarantee the dissent and exit condition for community members.

The revisions to the 2017 TOR discussed in the previous section worked to expand and clarify the process for how Forum members could be authorised to represent ‘the community’, with some limits. Accordingly, it could be inferred that the capacity for dissent and exit from the representative relationships might also have

been strengthened along with the authorisation. This had yet to be tested at the time of writing, which was prior to the first round of opening membership of the Forum to the broader Strahan community.

Accountability

The accountability picture of the Forum is mixed, as with the other conditions. In the initial years, accountability was passive and informal, but was strengthened through the revision of the TOR in 2017. Four connections points for accountability between the Forum and residents were in place but two of these were passive. Firstly, Forum members were consistent in ensuring a community newsletter was produced after each Forum meeting. Although the timing of the newsletter was delayed on some occasions, the minutes reflect consistent attention to correcting this problem. People reported that the newsletters were distributed in hard copy format through the main services in the town (e.g. the post office and the general store) and that the newsletters were always collected, which they took to indicate that people in the town were accessing them. They did not, for example, include information on how to join the Forum or get issues onto the Forum agenda. Notwithstanding the reported accessibility, then, the newsletters were passive forms of accountability.

The second form of accountability was formally representative and more likely to be reliable in facilitating people's meaningful agency through the Forum. Forum members with formal representative roles have formal accountability and two-way representation of interests in place; that is, their role is to represent their group's interests to the Forum, and also represent the Forum to their group. Accountability is enacted through the representative chain and safeguarded by the rules of authorisation and accountability established by the people-to-be-represented, i.e. organisational members. This form of accountability is a function of the representative chain rather than of direct 'community' participation in the Forum. It only applies to those Forum members who are representatives of established groups e.g. Active Strahan. The mix of formally representative and direct participatory members results in inconsistency in whose agency is facilitated via the Forum and whose is not. This also means that this form of accountability is not a safeguard for community members who are not also members of those established community organisations.

Thirdly, people reported that informal links between Forum members and residents were in place, as has been discussed in a number of places in the preceding analyses. I have suggested that such links are underpinned by good will and good faith, but do not fully safeguard community members' agency and participation in the Forum because of the informal social processes that produce them; for example, talking around town. Nor do informal links give people clear reliable and transparent control over the terms of the representative relationships with Forum members, or the advice and actions Forum members take as representatives of 'the community'. The informal links are, then, only a limited and somewhat passive form of accountability for facilitating residents' meaningful involvement in the Forum.

The revision of the TOR in 2017 included a clause that specifically addressed the gap between the Forum and members of the community more broadly. This clause was the fourth aspect of the Forum that sought to address accountability, and was worded as follows:

> *Issues requiring decisions and or recommendations affecting long term cultural, economic and social values of the community shall be canvassed within the broader community.*
>
> TOR 2017 Structure/membership, pg. 2

This clause specifies that work of the Forum members, representing 'the community', must be validated and opened to debate across the 'broader community'. While the clause does not specify how this should be done, or how debate and dispute is to be handled, the clause does strengthen the accountability structure of the Forum for direct participation. On this basis, I suggest the Forum rules moved closer to facilitating the agency of broader community members through the Forum and with respect to the components of governance established through the Forum. At the time of writing, this rule had yet to be tested but holds promise for improving community members' access and agency with respect to the Forum.

Discussion and conclusions

The Forum strengthened the connection between 'the community' and the expanding aquaculture industry. It also enabled 'the community' to have direct influence over local-level aspects of aquaculture industry operations and uses of the Harbour: aspects that lay outside requirements of formal legislative regulation. In other words, Forum members sought to govern together specific local-level aspects of the social, cultural

and economic impacts of the expanding industrial-scale aquatic activities. A number of positive local-level outcomes were achieved through the Forum and it provided a foundation for robust interactions between community members and industry representatives. People inside and outside the Forum regarded it as a useful and robust mechanism that ensured the aquaculture industry is accountable to its local community as a good neighbour and positive contributor to community life. The extreme events of 2016, however, brought to light some of the participation tensions inherent in this original structure. Forum members revised the TOR in 2017–2018 to address those challenges and, in revising, set some terms to strengthen the connection between the Forum and other community members. The local-level scope of the Forum, however, meant that there were no links between the Forum and the most relevant regulating agencies. The result was that the Forum as a model of community–industry governance held promise for improving governance of the Harbour but was limited in the capacity to protect the Harbour from significant negative ecological impacts.

As a hybrid form of governance, the lack of connection with the state, via the Tasmanian State Government agencies, was a problem that was implicated in severe and negative ecological impacts for the Harbour. The lens, however, was not sensitive to this problem of 'local' participation. The value of the lens is in understanding and rethinking the institutional forms that conduct, create and direct the representative relationships that bind participants, those who actually turn up, to those for whom they aspire to speak. In the case of the Forum, however, the members were persistent and committed to transparency and fairness in the structure and activities of the Forum. Their active review and response to the tensions was effective in strengthening the legitimacy of the locally focused initiative. This suggests the Forum was likely to give more voice and facilitate more agency for community members into the future.

How, if at all, did the SES participation norm influence the Forum?

The three axioms were woven together through the Forum. The influence of the axioms was not direct but could be plausibly inferred from the assumptions, experiences and structures of the Forum. This finding supports the proposition established at the end of Chapter 4 that the dominant conceptualisation of participation across the literature was also likely to be influencing applied instances of participatory marine governance. The findings here do not explain or indicate *how* the axioms of the SES participation norm

moved to influencing the Forum. There was some indication in the data that industry members responsible for the establishment were influenced by emerging governance practices and suggests the influence of key people in guiding and designing governance structures and in carrying social norms. I suggest that although the line from the SES literature to the Forum members' thinking and design was not direct, the presence of the dominant SES conceptualisation of participation exhibited features of a social or collective norm; that is, shaping shared assumptions and intentions and in turn informing the institutional rules and practices of collective efforts (Rinal and Lapinksi 2015).

The direct community–industry structure of the Forum suggested that governing social impacts of shared water use did not require the 'state' – government – to be at the table at all. Rather, social impacts could be managed by collaboration directly between the industry members and community members. I suggest also that although the Forum started as a communications process, it quickly developed a wider focus on community development and governing social impacts such as truck movements and marine debris. This assumption resonates strongly with each of the axioms of the SES participation norm. As such, I suggest the Forum was a case in which an influence of SES participation axioms was to open a conceptual 'space' for experimentation with hybrid governance relationships directly between community and industry members. This conceptual 'space' enabled community and industry members to respond in practical ways to the understanding that marine ecosystems are more than a hydrological system to be managed through ecological regulation. If so, this finding lends support to the interactive governance theory proposition that collective values and norms that lead to new governance 'imaginaries' – i.e. what I called a conceptual 'space' – are central to governance innovation realities for complex social-ecological systems (e.g. Song et al 2013; Jentoft 2007; Waters and Barnett 2018). In this particular case, the SES participation norm exerted an enabling influence for direct community-industry governance arrangements for issues that lie outside the direct remit of state-based management and regulation. The finding then also reflects the research into the significance of diverse forms of hybrid governance arrangements in environmental governance (Baird et al 209; Lemos and Agrawal 2006; Vince and Haward 2019) but draws attention to potential of semi-formalised arrangements directly between industry and community members.

Notwithstanding the productive influence, however, the presence of the participation norm was also implicated in tensions Forum members experienced when pursuing their participatory intentions. Direct participation of 'the community' was clearly an aspiration and intention for the Forum. Yet actually managing circumstances where many people did engage with the Forum brought to light the challenge of retaining openness to all community members and the need for predictability and consistency for building the social resources required for effectiveness (good faith and trust). In this case, the norm limited the institutional options available to Forum members as they grappled with the tensions after the trigger event. Their efforts to retain the principles of open and direct participation under the continuing influence of the participation norm, but also manage the negative impacts of direct participation, resulted in conflict between the new TOR rules. Forum members struggled to find institutional resolutions to the practicalities of facilitating the direct participation of community members without introducing representative mechanisms or strengthening the ones already in place. This finding indicates the limiting influence of Axiom 1 that participation is ontological and supports my proposition that the norm of direct participation was likely to limit the effectiveness and legitimacy of participatory forms of governance. The effect of the norm in this instance was not productive, rather it obscured the potential of representative mechanisms for strengthening participation institutionally in ways that could be explained, debated and understood by the local and wider polities, and by the members themselves.

What does the participation–representation lens explain, if anything, about the democratic legitimacy of the case study initiative?

Analysis using the lens revealed subtle contradictions between the rules and practices of the Forum. It also showed that adjustments in institutional rules shifted the capacity of the Forum to make the conditions available for community members. This can be seen by considering the transition from initiation of the Forum to the revision of the Terms of Reference (TOR) in 2017. To initiate the Forum, authorisation of who represented 'the community' lay in the hands of the industry association and the consultant. The initiative was at this stage an instrumental activity in the interests of the aquaculture industry and not related to community agency. Authorisation was then handed over to community members who were selected or 'authorised' from this external and instrumental step, and they then designed the rules of authorisation and

participation for themselves, the 2014 TOR. Nevertheless, in the first few years of the Forum, authorisation of who could represent 'the community' lay within the Forum rather than with the broader community. This means that in the establishment and early years of the Forum, the structure excluded rather than included community members – other than those few founding members. This was a case in which the unacknowledged representative mechanisms of key community members representing the broader community, although practical and instrumental, lead to anti-democratic effects rather than facilitating greater community influence over the social impacts for their community. This might be a practical and understandable decision to make in an establishment phase of participatory governance initiatives. If ongoing, however, this finding indicates that retaining authorisation processes and rules within an initiative will undermine the legitimacy of an initiative, as indeed it did as the limited membership settled in as a Forum practice.

Revisions of the TOR in 2017 opened up authorisation processes to town residents more broadly, and in doing so introduced an acknowledgement that the selection of community members he Forum was effectively an unacknowledged representative resolution to broad and open direct participation. The revisions to the institutional rules were simple adjustments that built on the principles inherent in the Forum's purpose and intentions; they were not complex or experimental. The lens was useful in explaining how the revised rules strengthened the legitimacy of the Forum's authorisation and participation rules, as well as revealing where rules can inadvertently undermine the principles of legitimacy. This suggests that while the conditions are deeply conceptual, they also have practical dimension that could be useful in the applied context to guide the design of institutional rules. Using the lens in the design of TOR, for example, would be useful for enabling designers to be very clear about how the core conditions could be safeguarded in innovative governance forms. Further, the lens would be useful for members of existing or established participatory processes or initiatives to evaluate the effects of their rules on throughput legitimacy and address inadvertent exclusionary and anti-democratic rules or practices.

The analysis of the implementation and revision phases of the Forum also showed that the conditions were closely interlinked: where authorisation was external to the representative relationships, exit and dissent was absent; where accountability was strengthened, exit and dissent and authorisation were also

strengthened. The links were not straightforward, however, and are affected by how the rules work together. This could be seen in the changes to the participation and membership rules where one rule strengthened authorisation and the other simultaneously resulted in different limits. For other cases of new or established participatory initiative, evaluating all institutional rules and practices and how they interact using the lens is essential to understanding the interplay among the conditions. While a focus on authorisation rules and practices in the first instance is an important place to start, the other conditions require examination in the light of authorisation practices. To use the lens in facilitating public scrutiny of the rules and practices of participatory initiatives would introduce a high level of transparency and constitute a sound reflective practice that would introduce authorisation, dissent and exit and accountability practices directly into any participatory initiative. Introducing reflective capacities into governance processes is a well-established process linked with governance innovation and development (Feindt and Weiland 2018; Hajer and Wagenaar 2003; Sol et al 2018; Voß and Bornemann 2011; Wilner et al 2012). With this lens in place, members and designers of participatory initiatives could subject rules, practices and processes to the scrutiny of potential constituents using the conditions to focus precisely and specifically on democratic process and throughput legitimacy.

In summary, the participation–representation lens was useful for analysing and linking both the conceptual and practical aspects of the Forum in order to understand which members spoke for which parts of the Strahan community. The Forum was very much ‘local’: the geographic definition of ‘the community’ was limited to a single town of approximately 700 people. Yet even at this scale, representative mechanisms were necessary to the functioning of the Forum. Some of the representative resolutions that characterised the Forum were formal, and others were indirect. The indirect forms, predicated on the direct participation norm, were the least effective in facilitating agency for community members and required adjustments to the rules to strengthen authorisation and accountability. The lens also shed light on the interplay between the rules and practices, and how the interplay influences the conditions. This is a heartening as it suggests that the lens can be useful for addressing structural and institutional challenges brought into relief by its analytic strength.

Chapter 8.
Synthesis and meaning making

The overarching purpose of this research has been to problematise participation by using political theory to understand the limits of participatory practices in marine governance. Early in this thesis I established that the influence of the precepts of participation democracy theory on participatory forms of governance result in low throughput legitimacy, and so are implicated in citizen disillusionment with participatory governance. This lack of legitimacy is the limitation to participatory governance I have focused on in this research. In this chapter, I draw together the findings from each of the studies I have conducted and presented in Chapters 3, 4, 6 and 7. I have reviewed and synthesised the findings to consider what, if anything, my research explains about the limits to participatory practices in marine governance and what research and practice directions are suggested by my research for addressing those limits. Consistent with my research design and intentions, I have focused on institutional design (rules and practices) as they pertain to throughput legitimacy.

In this chapter, I start by summarising and comparing the findings to identify patterns and standout features using matrices. In the first matrix, I compare the findings that address the first overarching research questions: *(1) What is the dominant conceptualisation of participation (the norm) within the marine governance theory and practice?* and *(1a) How does the dominant conceptualisation of participation (the norm) influence the structure and activities of participatory initiatives in the applied context (if at all)?* In the second matrix, I compare the findings from each study that pertain to the research questions common to the empirical studies (i.e. Chapters 4, 6 and 7): *(2b) What does application of the conceptual lens explain, if anything, about the dominant conceptualisation of participation in the marine governance literature?* and *(2c) What does application of the conceptual lens explain, if anything, about the dominant conceptualisation of participation in the applied context?* The dominant conceptualisation reviewed was the participation norm of the social-ecological systems (SES) paradigm. I finish the chapter with a discussion of the meaning of the synthesised findings for marine governance theory and practice.

Recap of the findings

The guiding questions for Chapter 3 were: *(2) What can political theory help explain about the limits of participatory approaches to marine governance?* and *(2a) What conceptual lens from political theory can assist in the problematisation of 'participation' in marine governance?* The objective was to examine two major traditions of democratic theory – representative democracy theory and participatory democracy theory – to rethink participation and problematise the assumptions about citizen participation in political processes. At the heart of both traditions is a concern with how to facilitate citizen participation in the polity, i.e. political agency. In the network society in which the sites of potential political agency have multiplied and the modes of political identity have diversified, facilitating participation has become complex and existing approaches to citizen participation have not met these needs. In my Introduction I called this 'the contemporary problem of participation'. In my analysis of the two democratic theory traditions, I found that both scholars and practitioners have been deeply engaged with the strengths and limits of representative resolutions to the problem of participation, but in very different ways. The story that unfolded was clear, participation *and* representation are intrinsically linked modes of citizen agency, and it is the link between them that is essential to facilitating citizens' political agency.

The institutional resolutions to this intrinsic link are different across the two traditions. In representative democracy theory, the formal representative institutions are the central means to facilitating political agency. In participatory democracy theory, I found the opposite, the citizen's direct self-presentation is regarded as the only democratically legitimate means to political agency. I also identified that the participatory democracy traditions struggled to address the direct participation of *a* large number of citizens, such as characterise contemporary democratic polities, i.e. political communities. Further, within this tradition I noted that representative mechanisms are accessed as pragmatic or instrumental resolutions to the limits of direct participation of many citizens. I turned to Pitkin's 1967 seminal theory of representation to make sense of how the dynamic between participation and representation worked and to generate insights into this problem of participation in the social-ecological systems (SES) context of marine governance. From this work I examined Piktin's three conditions that explain the intrinsic link between the two modes (participatory and representation): the conditions are authorisation, dissent and exit, and

accountability. I formulated these conditions as an analytic lens to examine the research and practices in marine governance.

The guiding questions for Chapter 4 were: *(1) What is the dominant conceptualisation of participation (the norm) within the marine governance theory and practice?* and *(2b) What does application of the conceptual lens explain, if anything, about the dominant conceptualisation of participation in the marine governance literature?* This chapter was the first of three specifically concerned with marine governance, and the second step in problematising participation. The objective was to itemise the component parts of the norm of participation and examine how the problem of participation is addressed in marine governance empirical literature. I found that the body of marine governance theory and practice was dominated by the SES paradigm, which is, in turn, significantly influenced by the self-presentation precept of participatory democracy theory. In the SES paradigm, participation is conceptualised as an ontological condition of human society, not just a political right under aspirations for democracy (as in participatory democracy theory). I found this conceptualisation to be a function of the driving purpose of SES thinking, that is achieving human behaviour change and adaptation to changing climate and marine conditions and ecosystem limits. Given this purpose, participation of each citizen is necessary to effect behaviour change, and representative mechanisms are inadequate for this purpose. From this foundation, governance is subtly reformulated to a social process focused on changing human social, economic and political structures to meet the limits of the changing ecosystem, rather than an institutional policy process for the allocation of 'who gets what, when, how and why'. These are necessarily simplifications of a wide body of marine governance research, but my findings, as qualitative content analysis, reveal this basic shape of participation as implicit within the SES paradigm.

Chapters 6 and 7 presented case studies of participatory marine governance initiatives. The purpose of the case study method was to see if the axioms of the SES participation norm examined in Chapter 4 were reflected in the applied context, and to test if the conditions (the lens) identified in Chapter 3 were useful for analysing institutional design. I posed two guiding questions for the case studies namely: *1a) How did the dominant conceptualisation of participation influence the structure and activities of the participatory initiative (if at all)?* and *2c. What does application of the conceptual lens explain, if anything, about the dominant*

conceptualisation of participation in the applied context? The cases were chosen to provide examples of innovations or pilots in marine governance in mature democratic contexts. The first case study was located in east coast Canada, the Southwest New Brunswick Marine Advisory Committee (the MAC). The MAC was a pilot in integrated management of a highly valued and productive waterway marked by multiple and increasing uses, the southwest Bay of Fundy. The second case study, the West Coast Community Aquaculture Forum (the Forum), located in Tasmania, Australia, was an experiment in hybrid community–industry governance of the sustainable expansion of salmonid aquaculture in a sensitive harbour ecosystem, Macquarie Harbour. In both cases, I found that the SES participation norm was in play, and in both cases the institutional design and practices lacked throughput legitimacy that in turn limited the capacity of the initiative to meet the governance objectives.

How is participation conceptualised in marine governance?

In the first matrix, Table 18 below, I mapped the findings from Chapters 3, 4, 6 and 7 for the first research question of how participation is conceptualised. Comparing these findings for this first research question set the foundations for problematising participation by making explicit the precepts, axioms, rules and practices across each study, and enabling a qualitative examination of the consistencies and differences. To do this, the precepts from participatory democracy theory were plotted in the left-hand column of Table 18, and the findings from each of the marine governance chapters were plotted against those precepts across the table columns moving left to right. A green mark signifies that the precept was present, an amber mark signifies some presence but also some ambiguity in the empirical finding, and a red mark signifies absence of a precept. A text summary of specific empirical findings was provided for each element of the matrix to enable the qualitative analysis of consistency across the empirical studies. The prevalence of green ticks across each element of the matrix demonstrates a high level of consistency between the precepts of participatory democracy theory and the conceptualisations of participation within the SES paradigm and across the case studies. The findings vary in the details but are consistent overall. In particular, the content analysis findings from Chapter 4 are more circumspect than those of the case studies because they are derived via a synthesising method in contrast to the specific details of the case studies.

Table 18: Synthesis of findings for the first overarching research question: What is the dominant conceptualisation of participation (the norm) within the marine governance theory and practice?

Thinking about participation (Ch. 3) Precepts of participation democracy theory	The norm of participation (Ch. 4) Social-ecological systems paradigm	Southwest Bay of Fundy Marine Advisory Committee (MAC) (Ch. 6) Integrated management of marine waterway	West Coast Community Aquaculture Forum (Forum) (Ch. 7) Hybrid governance of salmon aquaculture
Direct participation is privileged over representative mechanisms as the most legitimate expression of democratic principles (the ideal)	✓ Direct participation is necessary because it is how the world works and how human adaptation to ecosystem limits will be achieved Axiom 1: Participation is ontological	✓ Privileged direct participation and sought to actively avoid representation. 'Hats off' rule	✓ Privileged direct participation of people who lived and worked closely with the Harbour with no links to the broader community Openness rule
Representative mechanisms are present (the practice)	✓ 'Local' community or network prioritised over the broader polity 'Stakeholder' appeared as the primary participant but as a subset of a 'local' community	✓ Members were to generate 'community perspectives' Individual 'community-at-large' members were expected to represent community perspectives The 'community values criteria' device was meant to represent community views and aspirations	✓ Sample of community members gathered to represent views of the community Informal discussions across the small community the conduit for representing community perspectives
Treats representative resolutions as pragmatic and instrumental necessities; overlooks the political function of representative mechanisms (the practice)	✓ Ambiguous term 'stakeholders' employed as substitute for 'community'	✓ 'Community-at-large' members as practical resolution to community participation CVC regarded as a practical substitute to broad-based community engagement	✓ **BUT** members revised the Terms of Reference to acknowledge the necessity of representative mechanisms and make the process of participation overt and transparent to community members

Although the findings vary, they do consistently reflect the precepts of participatory theory. Firstly, in each study direct participation appeared as the foundational assumption that required no explanation. In the SES paradigm, participation is conceptualised as ontological, i.e. as the foundation for achieving the SES objective of human adaptation to changing marine ecosystems and adaptation to marine ecosystem limits. In both case studies, the participatory initiative was built on assumptions about improving governance of the marine estate through the direct participation of those involved with the marine ecosystem at the local level. In both case studies, there were rules to protect the foundational element of participation; for example, as expressed through the MAC 'hats off' rule and through the openness rule of the Forum.

Secondly, in each case representative mechanisms were active despite the first precept of direct participation. In marine governance theory and practice (the SES paradigm), this was implied through the focus on 'stakeholders' and 'resource users' as proxy for the 'community'. Within the paradigm, the emphasis was heavily on the 'local', with 'community' defined by the ecosystem. The representative precept was more explicitly evident in the case studies through the rules and practices of membership. The MAC 'community-at-large' emerged as the informal mechanism through which individuals known to the MAC network were appointed as representing the 'community' (as local). Further, in both the MAC and the Forum, membership comprised an unexplained mix of non-aligned individual members who were to represent the 'community' (also 'local') and specific commercial and conservation stakeholders. In each case, the representative mechanisms in place conflicted with the intention for direct participation of citizens, i.e. the 'community'.

Thirdly, it was clear that in each study the representative mechanisms at play were not acknowledged as holding specifically political functions in their own right. Rather, they were informal and treated as pragmatic solutions to the problem of the participation of large and diverse communities of interest. In the SES paradigm, the uncritical substitution of the 'stakeholder' and 'resource user' for the 'community' reflected a similar sleight of hand resolution to large-scale participation as evident within participatory democracy theory. My analysis of the institutional rules and practices of both case studies showed slightly different responses to the tension triggered by the representative resolutions at play. In the case of the MAC, efforts to use the community values criteria device (CVC) as a substitute for actual community member dialogue

failed and people regarded the practice as meaningless. In the case of the Forum, members had greater awareness of the tensions between their aspirations for openness and direct participation and the challenges of actually facilitating the participation of a range of community members. Common to both was the inability to facilitate the participation of the 'community' and the lack of throughput legitimacy that resulted from unacknowledged but pragmatic representative resolutions to this problem.

Finally, I would add that although the influence of the SES participation norm as identified in the literature was clearly present in the case studies, the influence was not direct. Nor was it apparent from this research how the norm 'travelled' from the literature to the applied context. Examining how the SES participation norm became activated in the applied context lies beyond the scope of this thesis, which sought rather to first establish what kind of participation norm was operating, if any. Nevertheless, relationship between the research and the practice is a potentially significant issue to understand, particularly because as I have shown in this case the influence of the norm has resulted in strong democratic processes. Beyond a level of agreement that social norms are a communicative act, however, the development and activation of norms remains a subject of debate within behaviour change literature (Biel and Thogersen 2007; Rimal and Lapinski 2015; Saurugger 2018) and so well beyond the scope of this project The findings here do show association between the marine governance literature and the applied context. The value provided here is in first understanding the norm and then examining how it influences assumptions, institutional rules and practices in the applied context as an initial step in addressing the institutional constraints to participatory practices.

In summary, then, despite the differences in the particularities of each study (Chapters 4, 6 and 7) the conceptualisations of participation across each study had common elements: that participation should be direct and self-presentation is formally privileged over representative mechanisms, and that participation should reflect the 'community' defined as 'local'. Moreover, a gap between this conceptualisation as guiding principles and the institutional practices that relied informally on representative mechanisms was present in each study. Together, the intention and the gap in each study reflected the features of participatory democracy theory I identified as significant for problematising participation:

1) aspirations for direct self-presentation of all citizens, but –

2) a resort to representative mechanisms for facilitating citizen participation, but –

3) without addressing the conditions for legitimacy of those representative mechanisms.

What this also means is that in dealing with the intrinsic link between participation and representation, participation is formally privileged over representation as the aspiration and normative intention, and representative mechanisms are relegated to informal and necessary resolutions to facilitating participation, but the political functions and significance of representative processes are overlooked.

The findings from the case studies have demonstrated that in participatory marine governance this effect is leading to anti-democratic processes in which community members and potential constituents or stakeholders are excluded rather than included in marine governance. Further, the conceptualisation of participation is reformulated through the SES paradigm to place the ecosystem at the centre of the polity, shifting the definition of who can participate from the citizen to the local community member and stakeholder, and shifting the reason why they can participate from agency within a political community focused on the distribution of common goods to the adaptation to ecosystem limits determined by SES science.

These assumptions are shaping the theory and practice of marine governance. This means that marine governance theory and practice is likely to be vulnerable to the lack of legitimacy associated with overlooking the political function of representative mechanisms. This means that the productive potential of the SES paradigm and emerging forms governing the marine environment will fail to achieve the desired goals – effectively and fairly balancing multiple uses of the marine environment and adapting to ecosystem changes. If citizens, constituents and stakeholders withdraw or are excluded from marine governance, as I have shown is highly likely, the opportunities for developing new social forms and social-ecological polities that function in better balance within a changing marine social-ecological system will be lost.

What can political theory help explain about the limits of participatory approaches to marine governance?

The second question guiding this research was a turn to political representation theory as a means to problematise of participation theory and practice in marine governance. To guide this part of the research I posed the second overarching research question with sub-questions to guide each study as follows:

(2) What can political theory help explain about the limits of participatory approaches to marine governance?

(2a) What conceptual lens from political theory can assist in the problematisation of 'participation' in marine governance? (Chapter 3)

(2b) What does application of the conceptual lens explain, if anything, about the dominant conceptualisation of participation in the marine governance literature? (Chapter 4)

(2c) What does application of the conceptual lens explain, if anything, about the dominant conceptualisation of participation in the applied context? (Chapter 6 and 7).

I have mapped the summary findings for this group of questions in the matrix in Table 19 below. To do this, I placed the conditions that comprise the lens - authorisation, dissent and exit, and accountability – in the left-hand column (see Chapter 3). For the purposes of this synthesis, I have formulated these as normative statements that must be met for representative relationships to be regarded as democratically legitimate as discussed in Chapter 3 (pg.69). I then mapped the findings from each of the marine governance studies (Chapters 4, 6 and 7) against these normative statements. As with the synthesis in the previous section, I generated a text summary of specific empirical findings for each element of the matrix to enable the comparison and analysis. As with the previous matrix, in (Table 19) a green mark signifies that the condition is present, an amber mark signifies some presence of the condition and some questions about what the presence means, and a red mark signifies absence of the condition. In this synthesis the prevalence of red marks across the matrix revealed that in most instances the conditions were not formally

addressed in a way that reflected the normative statement. This table stands in stark contract to Table 1, which was typified by green ticks.

Table 19: Synthesis of findings for research question: What does application of the conceptual lens explain, if anything, about the conceptualisation of participation in the marine governance literature and the applied context?

Thinking about participation (Ch.3) Lens of participation–representation as normative democratic principles	The norm of participation (Ch.4) Social-ecological systems paradigm	Southwest Bay of Fundy Marine Advisory Committee (MAC) (Ch. 6) Integrated management of marine waterway	West Coast Community Aquaculture Forum (Forum) (Ch.7) Hybrid governance of salmon aquaculture
Authorisation Permission given by those-to-be-represented to those representing. This is the act of handing over agency (the political right to participation in the polity) to another and so is a power dynamic	✘ Objective and purpose of governance is set by ecosystem limits Ecosystem limits are represented through ecosystem and biological sciences Not overtly addressed because taken care of by direct participation	✘ Instigated by network of interested stakeholders and government officials Authorisation by government officials 'Hats off' rule severed formal authorisation for professionals 'Community-at-large' members represented 'community' but no engagement from 'community' on selection of 'community-at-large' members ? Instigated from extensive community consultation (MRP) Community values criteria (CVC): a representative mechanism that symbolised community authorisation	✘ but - Instigated by professional practitioner ? Members revised the TOR to acknowledge the necessity of representative mechanisms and make the authorisation and participation process overt and accessible to community members
Dissent and exit The right of those-to-be-represented to dispute or leave the terms of the representative relationship. This is	✘ Dissension reformulated as conflict to be solved through social processes	✓ Dissension and exit present	✓ Dissension and exit present

the guarantee of the citizen's freedom, and so is a relationship of power.		**BUT** resulted in exclusion and disconnection from components of 'community' or the polity Did not impact on the structure or assumptions (the norm)	**BUT** resulted in exclusion and disconnection from components of 'community' or the polity Did not impact on the structure or assumptions (the norm)
Accountability The active engagement between those-to-be-represented and those representing that enables the representative to be held responsible for exercising the agency of the represented, and enables the represented to understand, consider and be part of the actions of the representative (in their name).	? Not overtly addressed Inferred that this is addressed through direct participation and so assumed to be also direct (self-presentation and direct accountability to the citizen)	✘ Passive through website and informal non-specified interactions with 'people in the community' 'Hats off' rule severed formal accountability for professionals 'Community-at-large' members represented 'community' but no formal or substantial engagement between 'community' and 'community-at-large members' No plan for broader community to engaged in the use of or outputs off the Community Values Criteria (CVC)	✘ Passive through newsletters and informal non-specified interactions with 'people in the community' ? Members revised the TOR to acknowledge the necessity of representative mechanisms and make the authorisation and participation process overt and accessible to community members

The analysis showed that the authorisation and accountability conditions were closely linked and embedded in the principle of direct participation or self-presentation in governance arrangements. This is because the principle of self-presentation by definition implies the citizen's self-authorisation and accountability is inherent in act of self-presentation and direct participation. In each case, the aspirational commitment to direct participation (the norm and Axiom 1) resulted in gaps in specifically addressing the process for authorisation. This in turn meant that active accountability was not addressed and assumed to be taken care of through direct participation. In each case, the source of authorisation was external and appeared to be a result of pragmatic response to the context. The source of authorisation within the SES paradigm was slightly different from the applied case studies, but nevertheless externally determined. In this case, participant legitimacy was derived from the SES science and the urgent call for behaviour adaptation to changing ecosystem conditions – a pragmatic and science-based response to authorisation. In both case studies the authorisation of members to represent the 'community' was effected by people already active in the governance initiative rather than those-to-be-represented, i.e. members of the 'community'. In neither case did the institutional rules and practices require authorisation to be tested transparently and overtly with the broader community. In both cases, members did show some awareness of the tension, as signalled by the amber mark. After three years of operation, for example, the Forum members tabled their uneasiness about this gap and sought to address it by revising the terms of reference. MAC members experimented with gathering authorisation through widespread consultation and generating the assessment tool they called the CVC. In each case, accountability was enacted passively, via website or *post facto* newsletter and more substantial forms of accountability identified by Pitkin were overlooked or assumed conceptually to be addressed via the precept of direct participation. This strongly suggests that the absence of authorisation rules and practices will result in minimal or passive accountability rules and practices. This is because where authorisation rules are absent, the constituency is not clear, and in turn, is it not clear to whom accountability is owed.

The findings for the dissent and exit condition were also mixed because although overall they were not addressed directly in the rules of either case study initiative, the key instance in the MAC when the condition was tested suggested they were also absent in practice. The significant impact of dissent or exit from the implied or unacknowledged representative relationship on the fundamentals of an initiative

indicated that the connection between dissent and exit and the institutional rules and practices is a significant factor for throughput legitimacy. In the case of the SES paradigm, dissention and exit was not directly addressed, except in so far as conflict among stakeholders was constituted as a problem to be solved through participatory governance processes. As a principle, there were no institutional rules in either case study to formally address dissent and exit from the representative relationship. There are two factors here: firstly, the presence of representative mechanisms was not formally acknowledged in the institutional rules – on the contrary, openness and direct participation were privileged. Secondly, and closely related, is a link with the absence of authorisation discussed in the previous paragraph. Where no citizen (community) authorisation of representatives exists, logically and necessarily neither can formal opportunities to dissent from or exit from a representative relationship exist. In all cases, acts of dissent or exit in any form were treated as external problems rather than understood as central to the democratic legitimacy of the representative relationships or representative mechanisms in play. In practice, while dissension was present in both the case studies it resulted in exclusion of the dissenter from the governance process altogether. The stark and concerning example occurred within the MAC when the Chief of the First Nations was excluded from the initiative. The influence of the norm was so powerfully embedded in the institutional rules and practices that this significant exclusion was accepted as unfortunate but unresolvable. Here again, the interplay between the conditions is revealed as significant in shaping how throughput legitimacy is constituted through the institutional rules and practices.

Overall, the results show that the conditions for democratic legitimacy are overlooked and poorly understood in marine governance, and this is due to the strength of the SES participation norm in both the theory and practice of marine governance. The SES participation norm shapes institutional rules and practices in ways that obscure the significance of the representative mechanisms that are inevitably in play wherever an effort is made to facilitate citizen or ‘community’ participation in marine governance. The absence of the conditions also strongly indicates that throughput legitimacy is compromised in participatory marine governance theory and practice. Moreover, the analysis has revealed the interdependence between the conditions. This means that it is important to analyse how the institutional rules and practices work together to deliver or undermine the three conditions, but it is also important to examine how the conditions themselves interact to constitute throughput legitimacy. If we were to

rephrase the research question and ask instead *are the normative democratic principles of political agency present in emerging marine governance arrangements*? the answer would be '*no, not really'*. In addressing the actual research question, I have demonstrated that the lens is useful for articulating the political principles implicit in the emerging SES theory of governance and is also useful in revealing the subtle but significant political implications of participatory practices in emerging forms of marine governance, as influenced by the SES norm of participation.

Discussion

In this section I discuss the patterns and threads identified through the synthesis of the findings from each study, above. In pulling these threads together, I have identified four interrelated overarching findings from the problematisation of participation I have conducted that explain limitations in participatory approaches to marine governance.

Representation is always present but not overtly addressed in marine governance

The first finding is that representative mechanisms or practices are embedded in participatory marine governance and how they are handled has an impact on the throughput legitimacy of marine governance arrangements. This is a corollary to the understanding I argued in Chapter 3, that participation and representation are always intrinsically linked and work together to facilitate political agency. Yet I have also shown that this insight disappears in participatory democracy theory (e.g. Dryzek 2006; Pateman 1970) and is also lost under the axioms of the SES participation norm (Adger et al 2005; Folke et al 2005; Hughes et al 2005). I demonstrated that in marine governance, the political function of representative modes – the long chain of representation – was overshadowed by the strength of SES axiom that participation is ontological and must therefore necessarily comprise the direct participation ideals and aspirations. In both the marine governance literature and practice the representative mechanisms were informally and instrumentally adopted to resolve the practical challenges of facilitating the participation of the 'community' *qua* stakeholders in the marine governance initiatives.

In the content analysis of marine governance literature, this showed up as the presence of the term 'stakeholder' being used interchangeably with 'community' (Berkes 2009; Cinner et al 2013; Gelcich et al 2010; Gutierrez et al 2011). In the MAC case study, despite specific efforts to restrict representation through the 'hats off' rule, 'community-at-large' members informally represented the 'community' and the CVC represented the 'community' through criteria expressing the stakes and interests of the community. In the Forum, community members were held to speak for community interests alongside representatives of community interest groups. These effects reflect the participatory democracy precept of privileging direct participation as an aspiration and ideal over pragmatic but frequently overlooked representative mechanisms. These effects also indicate that 'the community' as a constituency, is difficult to represent even on a small scale. This finding reflects the problem of representation and groups discussed in Chapter 3 (pg. 61). It also reflects research into fisheries governance in which the claims of representatives to 'speak' for the broader community were found to be problematic (Griffin 2013). This problem contributes to the lack of throughput legitimacy because some groups – for example stakeholders – can be represented but representing other more amorphous groups – such as 'the community' – in democratically legitimate ways is not clear. Application of the lens, however, pointed to the role of material practices as interpretations of the institutional rules e.g. the CVC, or the 'community-at-large' positions, in representing indefinable yet politically essential groups like 'the community'.

These empirical findings also demonstrated how representation is always present in otherwise apparently participatory practices. These empirical findings also demonstrated how the participatory efforts fail to deliver democratic throughput legitimacy where the representative practices are treated as instrumental or as apolitical ontological conditions of governance, as I have demonstrated they are in marine governance. This finding may seem uncomfortable in a context dominated by the SES participation norm, as I have shown marine governance is. However, it is significant for shedding new light on citizen disillusionment in emerging and ostensibly participatory forms of marine governance that are seeking to harness the adaptive potential of increased civil participation in marine governance (Adger et al 2005; Berkes 2009; Folke et al 2005; Jentoft 2007).

The conclusion that I draw from this is that participatory marine governance will always and inevitably involve representative mechanisms. Regardless of whether participatory initiatives start with

representative mechanisms in place or not, they are bound to end up with them at some point. To some extent this is understood in the participatory governance literature, but it is primarily treated as an instrumental problem that must be lived with; for example, through pragmatic approaches to 'stakeholder engagement '(e.g. Stringer et al 2006; Reed 2008). In SES governance literature dealing with scale and complexity, this understanding is implicitly rather than explicitly addressed; that is, that a 'long chain of representation' as I have termed it must reside within polycentric or nested governance structures (e.g. Armitage 2008; Marshall 2012). However, my research has shown that institutional rules and practices will influence the extent to which the representative mechanisms can produce throughput legitimacy and so must be addressed overtly as central to how participatory practices can deliver greater democratic outcomes. Pitkin positioned the link as a power dynamic and a fundamental democratic principle, and my research has shown that there is an important institutional dimension to this intrinsic link in the participatory context. This means that institutional rules and practices can determine the extent to which the balance between the participatory aspiration and representative practice could be regarded as democratically legitimate. This also means, then, that efforts that do take into account the intrinsic link between representation and participation in the design of institutional rules and practice can serve to strengthen connection with constituencies, and so also then increase the democratic throughput legitimacy of participatory practices. This conclusion is a useful contribution to governance practice because it enables governance actors in the democratic context to be alert to how representative mechanisms show up in governance arrangements. Understanding the intrinsic and political nature of the link can assist practitioners and research to avoid overlooking representative mechanisms or treating them as inconvenient but instrumental resolutions to managing larger-scale participation. Further, by introducing Pitkin's normative theory that addresses the power dynamic between participatory intention and representative mechanisms, the finding contributes to the body of critical analysis of the SES framework (e.g. Armitage 2008; Chaffin et al 2014; Cote and Nightingale 2011; Epstein et al 2014; Griffin 2013; MacKinnon and Derrickson 2013; Morrison et al 2017).

In addition, I suggest this research also makes a contribution to the current retheorisation of political representation underway in the political theory literature (see Brito Vieira 2017a). In this work, the major theorists (e.g. Mansbridge 2018; Saward 2018) have begun to grapple with a normative approach to

political representation that makes sense of the political representation in the contemporary network society (see Introduction pg. 17 for a description of this). In setting out the challenge for political representation theorists, Brito Vieira has identified the need for theoretical innovation in order for the concept and practices of political representation to remain relevant (2017a, pg. 9). Brito Vieira has also argued that to do so requires a return to and reengagement with Pitkin's seminal theory, as I have done in this research (2017a, pg. 1). I propose that my own reengagement with Pitkin's understanding of the intrinsic link between democratic participation and political representation has opened new ways of thinking about political agency and participation for the network governance context. Further, in operationalising Pitkin's components of democratic legitimacy I have been able to bring this seminal democratic theory to bear on the social and political implications of the 'turn' to the social-ecological systems (SES) paradigm for thinking about climate change and social adaptation. While I have yet to fully explore the implications of this finding, I suggest that this research makes a useful empirical and theoretical contribution to understanding how political representation shows up institutionally under hybrid and network governance conditions and how the notion of the polity is potentially reformulated under SES conditions (see also Griffin 2013; Montanaro 2017).

The dominant conceptualisation undermines democratic throughput legitimacy in participatory marine governance

The effects of the SES conceptualisation of participation dominant in marine governance are to undermine the legitimacy of participatory approaches to governance. This second finding follows from the first: the SES participation norm reflects participatory democracy theory, and both carry into marine governance a failure to deal overtly with representative mechanisms. As I have shown, this failure undermines the democratic legitimacy of participatory efforts because it excludes constituents rather than facilitating their participation in the governance effort.

In the case of the MAC, members sought to faithfully reflect the norms and practices of direct participation, but experienced representation in play. Its presence was not overtly recognised and made participation uneasy for 'community-at-large 'members. It also meant few MAC members were prepared to proceed to formal 'community advice' or perspectives because of the sense, which was difficult to

explain, that the CVC process lacked legitimacy. Similarly, professional formal representatives who were also MAC members experienced untenable tension in the face of the 'hats off' rule. These tensions rendered the participatory approach meaningless, created risks for the members and reduced the legitimacy of the process in the eyes of both the government partners and the community members. Within the Forum, members became sensitive to the representative characteristics of their hybrid governance process and had taken responsibility for the need to formalise it in their TOR review. In effect, they had transitioned from initial direct participatory principles and aspirations to accepting and working with the presence of representative functions.

However, it is interesting to note that the hybrid structure of the Forum excised the 'state', the third actor in the governance triad, and the formal and legitimate representation of 'public interest' beyond the very local reach of the Forum (e.g. Armitage et al 2012; Jentoft 2007; Kooiman et al 2008). This step was implicated in adverse impacts for the ecosystem because of the lack of formal accountability within the Forum that is usually represented by the state (Adger et al 2005; Jentoft 2007; Folke et al 2005). This is an important point that I did not fully address in this research in order to maintain my research focus on participatory practices. Hybrid forms of SES governance between private and civil actors that move away from state-centric notions of network governance (e.g. Armitage et al 2012) continue to emerge (Vince and Haward 2017). Accordingly, I suggest cases like the Forum warrant further empirical and theoretical examination in the contexts where participatory ideals and aspirations are highly valued, and actors are seeking to innovate in how larger-scale SES are governed (e.g. see also Fleischman et al 2014; Patterson et al 2017).

This second finding explains how it is that participatory processes in marine governance fail to deliver throughput legitimacy by pointing to the necessity of understanding the political characteristics of the intrinsic link between participation and representation. My research showed that in actual instances of participatory marine governance, representative mechanisms were present, were overshadowed by the aspiration for direct participation, and did lead to poor throughput legitimacy in the design and activity of each case study. Indeed, my empirical case studies suggested that in some cases institutional rules and practices may be specifically working against the link between representative and participatory mechanisms and in some cases severing the connection between so-called participatory initiatives and

the intended or potential constituencies. This effect reflects Griffin's (2013) findings from her research into European fisheries governance, and also works directly in opposition to the aspirations of proponents of participatory governance (such as Fung 2006; Fischer 2017; Ansell and Gash 2008). The corollary to this finding, then, is that current participatory practices under the influence of the SES participation norm cannot meet demands for increased democratic participation (Urbinati 2015) nor address the new sites and modes of political agency of the networked society (Hajer and Wagenaar 2003).

Urbinati (2015) and others (e.g. Disch 2011; Urbinati and Warren 2008; Runicman 2018) have voiced concerns about the limits of current forms of representation for the contemporary highly diverse and networked context. Research considering this problem is still developing (e.g. Nasstrom 2011; Schweber 2016) and in some cases the empirical or institutional implications are not yet clear (e.g. Nasstrom 2011; Rehfeld 2017; Saward 2010; Schweber 2016). In participatory democracy theory, theorists and practitioners turn to representative mechanisms such as lottery or random sampling to solve the problem (e.g. Fung 2006) and more recently very local level participatory methods (e.g. Fishcer 2017). Here at least is experimentation with representative mechanisms, although as I argued in the Chapter 3 these experiments also largely struggle with throughput legitimacy in the normative terms I have adopted from Pitkin. More directly within SES research, some have asked questions of representation from a critical perspective (e.g. Epstein et al 2014; Griffin 2013; Lebel et al 2006), however, with the exception of Griffin (2013), the questions of representation are addressed from within the participatory frame. This means that practices and efforts under the influence of the SES participation norm cannot address neither existing throughput legitimacy limitations nor the demands for increased participation unless and until practitioners and researchers overtly address the normative political function of representative mechanisms. I suggest that addressing questions of representation within the contemporary networked context remains largely a developing area for at least marine governance theory and practice, and that the work I have conducted here provides a fresh perspective on how such critical research might proceed.

The conclusion I draw from this is that addressing how representative mechanisms are embedded in and necessary to participatory practices is warranted, otherwise claims of participatory governance will remain misleading and will continue to undermine the democratic legitimacy of marine governance. Indeed, I

argue that participatory marine governance institutions that lack clarity about who is representing whom (or what), and how this representation is authorised and accounted for, will be unlikely to lead to successful marine governance outcomes. This position reflects and supports research into representation and agency in other contexts (e.g. Smith et al 2005; Klijn and Skelcher 2007), and Griffin's analysis of fisheries governance (2013). Overlooking the political significance of representative mechanisms and relying on the aspirational privilege of direct participation will continue to undermine participatory governance and will factor in disillusionment and failure of so-called participatory processes. Representative mechanisms clearly should not be treated as only pragmatic or instrumental resolutions to the problem of direct participation as is currently the case. On the other hand, if marine governance actors are overt in addressing the inevitable presence of representative mechanisms within participatory practices, the potential of SES adaptive marine governance research and practice will be strengthened. Addressing the presence of representative mechanisms will involve ensuring institutional rules and processes create and foster the conditions in which existing or potential constituencies can: authorise their representation; exercise dissent and exit in ways that influence the governance process and influence their representation; and experience active accountability in the representative relationship. The conditions do not specify how these must take place, only that they must. This position challenges Axiom 1 of the SES paradigm because even if participation is an ontological condition, it nevertheless relies on representative mechanisms. Furthermore, this being the case, exclusion is always a risk in participatory forms, and so democratic legitimacy is always at risk unless the conditions – authorisation, dissent and exit, and accountability - are present and active. Although these findings challenge axiom 1 of the SES paradigm, taking them into account will nevertheless strengthen the research and practice in generating adaptive marine governance arrangements by re-politicising people's participation, and so also move towards reducing the likelihood of disillusionment with the promise of participation.

The conceptual lens of participation–representation is robust and useful for institutional analysis and design

The lens of participation–representation is a conceptually robust and also practical normative tool for examining the extent to which throughput legitimacy can be said to be present in participatory institutions. In applying the lens to the forms of representation active in the case studies I have been able to bring

fresh insight to the limits of the precepts of participatory democracy theory and the SES participation norm in marine governance. Specifically, I have used the conditions which comprise the lens to examine and explain how representative mechanisms show up in participatory theory and practice in marine governance, and how this contributes to democratic throughput legitimacy. The absence of these conditions explains a significant limitation in current participatory practice, but also provides a pathway forward for addressing the problem. Furthermore, using the lens, I found the interplay between the conditions, or more precisely the interplay between the institutional rules and practices through which the conditions are activated, to be essential in understanding throughput legitimacy in the participatory context. These are new insights into how representative mechanisms operate in contemporary network and participatory context as described in my Introduction (see also Hajer and Wagenaar 2003), in this case marine governance.

In applying the lens to each study, I identified a number of interesting findings specifically with respect to the conditions under the SES participation norm. Firstly, I found that the process or actor that authorised legitimate participation lay outside the proposed constituency: in the SES paradigm it was implicit in the social-ecological systems framing of the purpose of the polity; in the MAC the authorising process lay with the government actors; in the Forum it lay initially with the professional practitioner and later in the hands of self-appointed community representatives. Despite these different authorisation processes, they were all externally located i.e. away from the constituency and had negative flow-on effects for both exit and dissent, and accountability, and so also in turn for the democratic legitimacy of each case.

I established that the dissent and exit condition is fundamental to safeguarding personal freedom but is conceptually absent in the SES participation norm because of axiom 1 that participation is ontological. Pitkin (1967) explains that without the ability to disagree with the representative's actions or decisions (dissent), or the contract of the representative relationship (exit), the representative relationship has a high risk of coercion for the citizen. Coercion undermines the capacity of the representative relationship to facilitate the group's or person's political agency and so in turn, agency can only be said to have been experienced if those-to-be-represented are free from coercion. In the electoral mode, dissent and exit are exercised *post facto* at the ballot box. It is less clear how dissent and exit show up in so-called participatory or other forms of governance. Following Pitkin's insight and reflecting on the experience of

the Peskotomuhkati Chief (see Chapter 6), my work has shown that the capacity to dissent from and exit representative relationships and/or institutions must be clear to the constituents and must have influence over relationships and/or institutions.

Without citizen influence over the 'what, where, how, when and why' of the governance process, it is difficult to argue that participation has been meaningful or democratically legitimate. It was clear that the Chief exercised agency through his dissent, but the result was exclusion and exit rather than progress towards more legitimate community-based marine governance. How meaningful, then, was the Chief's agency in this situation?

Closely associated with problem of exclusion in the case study, I also found that under the influence of the SES participation norm there is little space for dissent and exit as an expression of democratic agency and as a characteristic of democratic legitimacy. Under the SES participatory paradigm, however, conflicts and differences are conceptualised as distracting conditions. Conflict is a problem that must be solved through social processes such as negotiation and social learning to produce new aligned assumptions and positions towards the objective of adapting to changing marine conditions. Interestingly, my case study findings suggested allowable dissent lay within the institutional rules on purpose and scope as expressed in, for example, the MAC consensus rule to record differing views of a specific policy. Dissent that sought to affect the institutional rules, as in the Chief's case revisited above, was disallowed. This was because it was regarded as disruptive to the SES axiom that direct participation will and should build social capital and trust. I propose the effect of this paradigmatic conceptualisation of dissent (and exit) insulates governance processes from genuinely dissenting inputs as options for institutional change, and in particular change that strengthens the democratic legitimacy of governance processes. While these points regarding dissent and exit primarily extend from a single instance in one case study and absence in the other, they are likely to hold also for situations like this. Although a single instance, it is nevertheless a significant one when considering Indigenous nations' relationships with institutions and processes that seek to govern traditionally owned lands or waters.

Taking these findings across the four studies together, I suggest then that where authorisation is externally located, accountability becomes subsumed as a function of direct participation and does not

need to be addressed beyond passive *post facto* information provision. When this happens, the direct participation ceases to be democratically legitimate. I also suggest that the interplay between the authorisation and dissent and exit conditions is important but very complex and requires further investigation. This is a tentative but somewhat unsurprising finding given the understanding that conceptually the three conditions must work together to produce political agency. Future research that examines the institutional forms and practices of the dissent and exit conditions is warranted, and theories of reflexive and pluralist governance (e.g. Meadowcroft 2007; Patterson et al 2017; Stirling 2016; Voß and Bornemann 2011) together with Michael Saward's performative representation theory (2010) may be fruitful ways forward for understanding institutional forms of this complex condition better.

The conclusion I draw from this third finding is that the participation–representation lens, comprising the three interrelated conditions, is a analytically powerful and accessible approach to analysing how participatory and representative mechanisms are linked in governance processes. Further, application of the lens is useful in revealing and examining the interplay between the institutional elements that is instrumental in producing the presence or absence of the legitimacy conditions. I have demonstrated that the lens is useful in drawing attention to the interplay between the key elements of an initiative: participants' assumptions, values and intentions; the articulated purposes of an initiative; the institutional rules codified in key governance documents; and the practices and activities performed as the practical expression of these elements. It is the interplay among these elements that results in the presence or absence of the conditions and so also then democratic legitimacy of an initiative. It is the interplay among the elements, then, that warrants attention in designing, evaluating or refreshing institutional governance arrangements. Application of the lens in these ways is therefore likely to be useful in designing and testing governance arrangements that seek to incorporate diverse forms of representation that are relevant to the network context. If actors use the lens in designing, implementing or reviewing governance arrangements, they will, for example, be able to examine how different representative mechanisms work for facilitating the participation of different constituencies. In more specifically SES terms, application of the lens will assist researchers and practitioners to expand the focus of 'social' processes to include the more specifically political functions of institutional forms of participation and throughput legitimacy.

I identified a key limitation to the conceptual foundations of the lens in Chapter 3, that the lens is derived from foundations that do not directly address contemporary theories of power (see Chapter 3, pg. 51). I deployed Pitkin's core principles in combination with insights from Saward's performative theory of representation as an heuristic to examine the empirical usefulness of the lens. While the lens has proved useful, I suggest that the conceptual lens would benefit from future conceptual and empirical work that introduces and tests the capacity to analyse power relations using the lens beyond the institutional context. As such, I suggest that experimentation and innovations in hybrid and other forms of marine governance using the lens will retain clearly articulated democratic principles at the core and enable practical consideration of throughput legitimacy. On this basis, I suggest that 'experiments' and innovations in participatory governance supported through an applied action research-style methodology would be a useful direction for further research to extend and strengthen the democratic legitimacy of marine governance. Further, I would argue that doing so is particularly important as marine nations face changing marine ecosystems and increasing 'blue economy' industrialisation of the marine 'estates' (e.g. Choi 2017; Pauli 2010; Silver et al 2015; Winder and Le Heron 2017) in the context of increasing demands for citizen involvement in policy processes and decreasing citizen trust in existing governance processes. Although in this research I retained a focus on subnational governance, these findings are likely to be salient for international and cross-national governance, in which the problems of how to structure institutional 'architectures' for equitable just and effective ecosystems governance remain current (e.g. Biermann et al 2010; Patterson et al 2017).

The SES paradigm lacks a coherent articulated underpinning political theory

My fourth finding is that although the SES paradigm is a compelling approach to the challenges of adaptation ahead, a coherent underpinning political theory has yet to be articulated. This is important because the SES norm of participation uncritically reflects the precepts of participatory democracy theory and practice, and that lack of recognition results in important limits to the participatory approaches to marine governance. Indeed, it results in anti-democratic practices and processes in marine governance discourse and practice (see Chapter 4). The implied claim to greater democratic legitimacy via direct 'community' participation within the SES participation norm and its subsequent failure was a factor in both

my case studies. Despite strong foundations in community engagement and clear assumptions about direct participation as critical to effective marine governance, in both the MAC and the Forum the rules and practices shut people out. In both cases, direct participation in the innovative governance arrangements was assumed *ex ante* to improve the throughput legitimacy of marine governance, and in both cases it failed. I have shown that both cases foundered on a failure of throughput legitimacy because the axioms of the SES participation norm provided no guidance, language or tools for taking account of the institutional and political implications of how participation can be facilitated.

As I demonstrated in Chapter 4, the primary driver for governance under the SES paradigm is human adaptation to ecosystem limits and changes (Adger et al 2005; Berkes 2009; Folke et al 2005). This contrasts with the primary driver of governance as a process of a democratic state, which would ensure the right of every citizen to have a say on the objectives of the polity and the allocation of the polity's resources (Brito de Vieira and Runciman 2013), which may not necessarily result in adaptation to climate change effects as the agreed priority. The findings demonstrated that in the SES context, citizen or 'community' participation is treated as a condition of how the world works, i.e. an ontological condition, rather than a political right under a democratic system that has institutional implications (as examined in Chapter 4). I labelled this Axiom 1 of the SES participation norm (see Chapter 4). My research findings indicate that the implications of this axiom for marine governance processes and practices are significant. It became evident in my research that without a clear theoretical underpinning, such as provided by the lens of participation–representation, policy and community actors engaging in participatory marine governance are inadvertently producing anti-democratic processes. This leads me to conclude that if the implicit SES political theorisation that sits behind participatory practices remains unarticulated, marine governance measures based on the SES paradigm are likely to continue to produce the anti-democratic effect of excluding people rather than including people in decision-making.

From here, I then also find that it is important to examine the implications of the assumptions and axioms of the paradigm for institutional design and democratic legitimacy. To do this would be to build on existing work critically analysing the SES paradigm (e.g. Cote and Nightingale 2012; Epstein et al 2014; Fabinyi et al 2014; Patterson et al 2017; Smith and Jentoft 2017) and contribute specifically to strengthening the democratic legitimacy of marine governance processes. To do so would also build on the SES

governance research that has sought to address the problems of governing larger-scale ecosystems (e.g. Armitage 2012; Biermann et al 2010; Chaffin et al 2014; Marshall 2008). The conceptual frame and approach I have presented in this thesis contributes a specific focus on the challenges of governing larger-scale and diverse *polities*, i.e. *political* communities within the SES framework, and introduces fresh ways to examine problems of representation, complex governance and plural political communities (e.g. Patterson et al 2017; Stirling 2016). Given the widespread influence of the SES paradigm (e.g. Armitage et al 2012), this work is likely to also have relevance for other resource policy areas. I have shown through my research that the application of the lens of participation–representation is a useful place to start this process, but there is more work to be done.

Understanding constituent perspectives

Lastly, I raise a new question for future research to consider that in my mind follows from the institutional focus I have maintained in this research: how do potential constituents negotiate, experience and assess the participation–representation relationship? In this research, I have focused on the institutional design, the rules and practices, that shaped the participation–representation link, and have focused on the intentions and experiences of the people involved in the design and practices. Clearly, though, participatory governance is also about the experience of an intended constituency, however a constituency might be defined (Saward 2010). The conditions that comprise the lens of participation–representation, authorisation, dissent and exit, and accountability, are equally a matter for those-to-represented as they are for those who represent (Saward 2010). Examining the perceptions and experiences of those-to-be-represented was outside the scope of this project. My purpose was to examine institutional arrangements (rules, norms, processes and actions) and experiences of participants-as-representatives of those institutional arrangements. From my research, I have been able to progress an understanding of how institutional arrangements shape the balance between participation as representation.

Understanding how potential constituents (those-to-be-represented) experience institutional arrangements that seek to facilitate their political participation is a necessary step in extending the theory and practice of network and hybrid governance (e.g. Severs 2010; Waters 2018). Saward's (2010)

performative theory of representation introduces a conceptualisation of those-to-be-represented as ‘audiences’ to political processes of representative claim-making. Saward’s ((2010) approach is built on the understanding of representing as a dynamic process and relationship rather than an institutional process. While Saward (2010) has attended to how representative claim-making happens, the question of how ‘audiencing’ happens and the responsiveness component of representation are questions still to be fully explored (e.g. Saward 2010, Severs 2010). How do people negotiate representative claim-making and what do they regard as political participation in the context of a myriad of sites for representative claim-making, given the changing political technologies and network practices – how do they ‘audience’? I suggest that further research examining constituents’ ‘audiencing’ practices using the lens of participation–representation would further extend our understanding of how governance processes can better reflect or animate democratic principles of participation through representation.

Summary

In problematising participation in this research, I have been able to examine how the conceptualisation of the influential SES norm of participation has produced limits in the democratic legitimacy of participatory practices in marine governance. My research points to a simple yet significant observation: poorly designed governance institutions will fail the democratic legitimacy test if they are based on a lack of attention to the intrinsic link between democratic participation as a right and representative mechanisms as necessary for political participation - even if driven by well-intentioned aspirations for democratic participation. On the other hand, the democratic legitimacy of governance institutions could be strengthened by applying the lens of participation–representation and working thoughtfully with the interplay among the rules and practices of authorisation, dissent and exit, and accountability. Given the diversity of practices in marine governance, there will likely be exceptions to my findings. However, the combination of methods I have used in this research – bringing together analysis of the marine governance field with fine-grained rich analysis of case studies – demonstrates that this problem of the participation norm, institutional design and democratic legitimacy warrants inquiry. I have produced and tested a robust and practical tool for institutional design that can assist practitioners and researchers to extend and strengthen how we design and practise marine governance for the democratic context. As

such, this research makes a novel contribution to addressing citizen disillusionment in marine governance processes.

Conclusion

In this thesis, I have been concerned with the institutional analysis of marine governance in the democratic context. The purpose was to problematise the norm and practices of participation to shed new light on the current limits of marine governance, and to extend participatory governance theory and practice. These purposes were a response to the marine governance literature indicating the theoretical underpinnings of marine governance would benefit from further development, and my own previous research and experience indicating that political representation had something to do with failures of participatory processes. To problematise, i.e. to look differently at participation in governance, I set research objectives that enabled me to rethink assumptions about participatory governance practice (Chapters 3 and 4), then to explore any insights such re-conceptualisation yielded for the applied context (Chapters 6 and 7), and finally to synthesise the findings to generate new insights into participatory governance theory and practice (Chapter 8). This research design meant that I was able to bring together the 'conceptual' with the 'applied', and the 'general' with the 'particular'. Through this work I have examined participation in marine governance, both in theory and in practice, in way that sheds light on the dominant norm of participation in marine governance: a way that will assist practitioners, researchers and citizens to improve the democratic legitimacy of marine governance processes.

The institutions and practices of participation needed to be problematised because the largely settled assumption about the value of direct citizen participation in governance seemed to be leading to adverse outcomes. Further, recommendations arising from earlier empirical research have largely suggested that despite critiques of the failures and limitations, more direct participation has been posed as the solution to existing problems of direct participation. My research has been timely because the twin challenges of climate change impacts for marine ecosystems and rising citizen disaffection with existing democratic structures signals this is a time of significant change for human societies. Adapting to changing climate for example does not need to proceed through democratic structures and processes nor by adhering to democratic principles. If, however, polities – i.e. citizens and communities – continue to hold democratic

principles dear, then innovating in democratic structures and processes to adapt to the changes in marine ecosystems is imperative.

Hannah Fenichel Pitkin's 1967 seminal theory of representation pre-dated the contemporary network socio-political context, the participatory turn in policy and governance, and rapid, uncertain climate change. In this work, Pitkin focused on first principles of political participation, representation and democratic legitimacy and so provided a useful starting point for rethinking the norm of direct participation. Pitkin explained the intrinsic link between the foundational democratic principle of every citizen's participation in the polity and the representative relationships necessary to facilitate that participation in a populous context. Moreover, Pitkin established normative criteria for assessing the democratic legitimacy of the link: authorisation, dissent and exit, and accountability. As part of my research, I formulated Pitkin's understanding of the link and the criteria as a conceptual and analytic lens to see if Pitkin's theory could be useful for institutional analysis in a network governance context.

In this context, I found that Pitkin's theory provided a useful framework, and the participation–representation lens I formulated was also useful for examining democratic legitimacy in the contemporary applied context. I have concluded that the lens was useful precisely because it was built on the understanding that participatory principles are intrinsically linked to representative mechanisms. This means that the lens was not blind to the presence and political function of representative mechanisms. Because of this central assumption about the connection between participation and representation, application of the lens enabled me to identify that under the influence of the contemporary SES norm of participation, the political function of representative mechanisms often gets overlooked and that this conceptual blind spot in participatory initiatives undermines the throughput legitimacy of such efforts.

Additionally, I found that the social-ecological systems (SES) paradigm is the dominant framing of marine governance theory and practice but as a paradigm does not offer a coherent articulated account of democratic principles, structures and practices. More pertinently to my research concerns, the SES paradigm does not account for citizen participation as a political right but rather implicitly constructs it as an essential strategy for adaptation to climate change and ecosystem limits. I contended, therefore, that this means the SES paradigm is blind to the intrinsic participation–representation link and assumptions

about direct participation overshadow and obscure the function of representative relationships and mechanisms in facilitating political agency. This means that under the influence of the SES paradigm, implicit assumptions about direct participation, practitioners, citizens and communities have been unable to address throughput or process legitimacy, leading to anti-democratic institutional arrangements. From this conceptual work, I found that participatory marine governance has a democratic throughput or process legitimacy problem in theory and in practice. This is not the whole story for the limits and challenges of participatory marine governance, but it does provide new insights into an important dimension, i.e. institutional legitimacy as a practice.

On synthesising my findings, I have concluded that unfounded but nevertheless powerful normative assumptions about direct participation as the democratic ideal have shaped marine governance research and practice. These assumptions have resulted in institutions, processes and practices that lack democratic legitimacy, particularly throughput or process legitimacy. The conceptual tool I have generated in this research was effective in explaining how the norm undermines democratic legitimacy despite the implicit claim to increasing democratic legitimacy. There will always be exceptions to this finding as marine governance research and practice is a vast and diverse endeavour. My case study examination also was limited to marine governance in the mature English-speaking settler democracies of Australia and Canada. Nonetheless, my research has been rigorous because I conducted it as a carefully integrated qualitative social research study that brought together the general with the particular. I did this in two ways. Firstly, I synthesised my analysis of the broad field of marine governance through content analysis with my rich case study examination of the particular. Secondly, I tested strong conceptual underpinnings that I generated through the theorisation and content analysis, within the applied context of my case study analyses. This means that my findings are relevant for the particular context and also relevant more broadly for marine governance in democratic contexts.

How then do we avoid this throughput legitimacy problem in marine governance in the future? Looking through the participation–representation lens proved a better way to think about the institutional design and practices of participatory governance than forging ahead under the influence of the norm that direct participation is *a priori* a more democratic approach than carefully considered representative relationships and mechanisms. My research has shown that the application of the participation–representation lens is

conceptually robust and a practical aid to reviewing and redesigning the institutional structures and practices of participatory governance.

Civil participation in governance and public policy deliberation remains a powerful norm and democratic aspiration but to be effective and democratically legitimate, participation practices must continue to move from symbolic to substantive. My research has indicated the lens can be applied to guide positive amendments to participation in practice. However, there is no 'one size fits all' rule for improving participation practice. The broad body of research has been clear that governance is a multifaceted and complex process of power, institutions, actors and context *and* that particularities and context are significant influencing factors. Similarly, legitimacy is a complex judgement of input, throughput and output made by a range of actors drawing on an almost dizzying multiplicity of perspectives, interests, values and experiences. Further, marine social-ecological challenges are regarded as 'wicked' and complex in themselves. Nevertheless, as a social researcher I must heed the call to be practical rather than falling into the trap of simply pronouncing 'it's complex and it depends'. I suggest that the lens I have produced and tested changes governance and participation practice by *clarifying an aspect of the complexity* – that is institutional design and democratic legitimacy. Application of the lens can provide guidance to the necessarily diffused and often place or context specific needs and problems. If used by policy-makers, researchers, or other actors involved in influencing the design of governance processes, the lens can assist by drawing attention to the context-specific characteristics and requirements for the three conditions. The change in practice with respect to participation and governance, then, lies in the design and evaluation of community/civil involvement in ways that also involve citizens in the design process. If this lens is used as a normative guide for democratic institutional legitimacy, practitioners *and* citizens will be able to see beyond the participation norm of direct participation and mitigate the throughput legitimacy risk.

My research has established a place to start improving institutional design and has also revealed that the interplay between the conditions, codified in institutional rules and practices, is complex and significant in influencing the legitimacy outcomes. This means that it is not possible to recommend specific rules or practices that address the conditions in all contexts, but that understanding the interplay better is important. Further research into how the interplay works and how it influences throughput legitimacy will

add important additional knowledge about the theory and practice of participatory governance. Such research can also extend our understanding of how to address the democratic legitimacy gap in social-ecological systems governance. I have shown that the lens provides insight for institutional legitimacy and I suggest that it may also provide fertile ground for exploration of citizens perceptions of legitimacy. It has proved useful and relevant for marine governance situations in the Australian and Canadian contexts and is likely also to be useful and relevant in comparable parliamentary democracies with marine responsibilities. Future research into the relevance of the lens for democratic nations with different cultural contexts and institutions would be a fruitful contribution to marine governance more broadly. Moreover, the influence of the 'participatory turn' extends beyond marine governance to range of wicked policy areas and as such the lens is likely to have application for such policy areas influenced by the participation norm. Further research into the relevance of the lens for resource governance under the social-ecological systems paradigm, for example, would assist in developing the conceptual underpinnings and political theory implicit within the social-ecological systems paradigm. The lens may also have relevance for examining the democratic legitimacy and design of institutional structures and practices within other policy areas with well-established participatory practices, such as participatory budgeting and urban planning.

Marine ecosystems are changing, and the predictions are that the changes will be significant and the effect uncertain and far reaching for people who live, work and recreate as part of marine social-ecological systems. At the same time, advances in marine technologies have paved the way for increasing marine exploitation and industrialisation. Democracies, also, are changing, and citizen demands for greater agency, transparency and action to address power imbalances and non-legitimate institutions are undermining the people's faith in democratic principles. This is a heady mix, a perfect storm even, that demands new forms of governance and greater accountability for the political principles at play in emerging forms of private, government and civil governance. In this research, I have focused on one element of this mix: throughput legitimacy of institutional design and practice in marine governance. I have explained how participatory practices appeared to result in exclusion rather than political participation. I have done this by applying a political theory of participation and representation to the theory and practices of marine governance. I have re-introduced normative criteria that work together to

explain how political agency is facilitated and how institutional legitimacy operates in marine governance; namely authorisation, dissent and exit, and accountability. I have critiqued the social-ecological systems paradigm that is dominating marine governance and explained how the gaps in the paradigm are inadvertently leading to anti-democratic governance practices. My research has made a useful contribution to marine governance theory that will enable policy actors, including citizens, address some of the shortcomings of current practice. I have also made a novel and conceptually sound contribution to the emerging theory of social-ecological systems governance that will enable all of us involved in marine governance to think about and experiment more soundly and overtly with democratic adaptation to a radically changing social, political, economic and ecological future.

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Chapter 1: Introduction

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Runciman, D., 2018. *How Democracy Ends*. Basic Books.

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Schweber, H., 2016. The limits of political representation. *American Political Science Review*, *110*(2), pp.382-396.Severs, E., 2010. Representation as Claims-Making. Quid Responsiveness? *Representation*, *46*(4), pp.411-423.

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Smith, A., Stirling, A. and Berkhout, F., 2005. The governance of sustainable socio-technical transitions. *Research Policy*, *34*(10), pp.1491-1510.

Smith, A. and Stirling, A., 2010. The politics of social-ecological resilience and sustainable socio-technical transitions. *Ecology and Society*, *15*(1) pg. 11

Stirling A., 2016 Knowing Doing Governing: Realizing Heterodyne Democracies. In: Voß JP., Freeman R. (eds) *Knowing Governance.* Palgrave Studies in Science, Knowledge and Policy. Palgrave Macmillan, London

Stringer, L., Dougill, A., Fraser, E., Hubacek, K., Prell, C. and Reed, M., 2006. Unpacking "participation" in the adaptive management of social–ecological systems: a critical review. *Ecology and Society*, *11*(2), pg. 39

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Vince, J. and Haward, M., 2017. Hybrid governance of aquaculture: Opportunities and challenges. *Journal of Environmental Management*, *201*, pp.138-144.

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Appendices

Appendix 1: Detailed methods and results for generating the purposive sample

Search purpose and design

The purposive sample of influential papers was derived from a large base corpus of academic papers that represented marine governance theory and practice. Academic literature was chosen as the source of the base corpus because it represents both conceptual knowledge production (through theory making) and practice (through empirical research) (e.g. Ellegaard and Wallin 2015). I generated the purposive sample from within a large base corpus so it was a 'normal sample' and so plausibly reflect the body of papers on marine governance[22] as they pertain to Australia and Canada, providing a second measure of *comprehensiveness*.

I generated the purposive sample in two stages: Generating the base corpus; Deriving a purposive sample from within the base corpus. I describe both stages in the following sections.

Stage 1: Generating the base corpus

I generated a base corpus using the principles of systematic literature review i.e. that the search must be *systematic*, *explicit*, *comprehensive* and *reproducible* (Denyer and Tranfield 2009). To do this I used a *systematic* approach to keyword searching – setting keywords derived from the core study concerns - and comparing results across two comprehensive literature databases: Web of Science and SCOPUS. Then refining the search to ensure alignment with my research scope and concerns (see Introduction, pg. 23). This strategy ensured the sample was both *comprehensive* and appropriately targeted. The details of the

[22] As per the central limit theorem.

search terms and cleaning process provided below ensure the study meets the criteria for being *explicit* and *reproducible*. On this basis, the purposive sample and findings generated from analysing it can be regarded as reliable and relevant to late mode democracies similar to Australia and Canada.

Firstly, I generated search terms that reflected the core concepts and purpose of the study. The search strategy, i.e. the alignment between the search terms and purpose of the study are set out in Table 20 below.

Table 20 Alignment between search strategy and the purpose of the study

Relevant study concept	**Search terms**	**Rationale**
Participatory governance Marine governance Coastal zone governance	(1) 'Marine OR coastal' [and/or] 'governance'	To ensure wide coverage of papers dealing with marine and coastal governance across any jurisdiction The term 'governance' captures a diverse range of processes and approaches to authorization, accountability, planning, decision-making, regulation and implementation. The term can also capture the cross-cutting aspects of marine commons policy areas and incorporates approaches that generally involve a range of actors including stakeholders, resource users and citizens.
	Policy areas as search term combined with [and/or]'governance' (2) marine protected area/s (3) marine spatial planning (4) marine renewable energy (5) aquaculture	To capture papers that specifically deal with marine and/or coastal environments or ecosystems To exclude papers that did not directly deal with governance.
	Exclusions Limited to English language publications SCOPUS: Exclude bio-physical/hard sciences Web of Science: limited to Social Sciences Index	To exclude papers that deal primarily biophysical topics, or other hard sciences topic and do not directly address policy and governance processes.

Using the search terms from Table 20 I conducted an identical search in two indexing databases to ensure comprehensiveness of the search: SCOPUS and Web of Science (WoS). SCOPUS was as used

it contains the largest number of journals (Li 2010), and Web of Science was used because it covers a long time-span and is well regarded for the quality of the indexing (Naukkarinen and Bragge 2016). The two databases therefore have slightly different strengths and weaknesses and using both ensured I had case a wide net for the literature search and minimised the chance of missing relevant papers.

I conducted a set of trial searches which I had reviewed by a University of Tasmania librarian for search quality, and to ensure my search terms were robust, and the search was reproducible. As a result of this review, I added two exclusions: limiting the search to articles and reviews; and publications in English only. I conducted the searches in September 2018, and ran a search for each search term separately i.e. 5 searches in each database (10 in total):

vi. 'marine or coastal' [and/or] 'governance';
vii. 'marine spatial planning' [and/or] 'governance';
viii. 'marine protected areas' [and/or] 'governance';
ix. 'marine renewable energy' [and/or] 'governance'; and,
x. 'aquaculture' [and/or] 'governance'.

The Web of Science search was limited to the Social Sciences Citation Index (SSCI). This function is not available in SCOPUS, and so as an alternative, limit criteria to exclude biophysical sciences were applied manually to each result list in SCOPUS.

I then:

- downloaded the results lists into Endnote software;
- combined the 10 search lists into a single Endnote folder;
- identified duplicates using the Endnote sort function; and
- manually deleted duplicates.

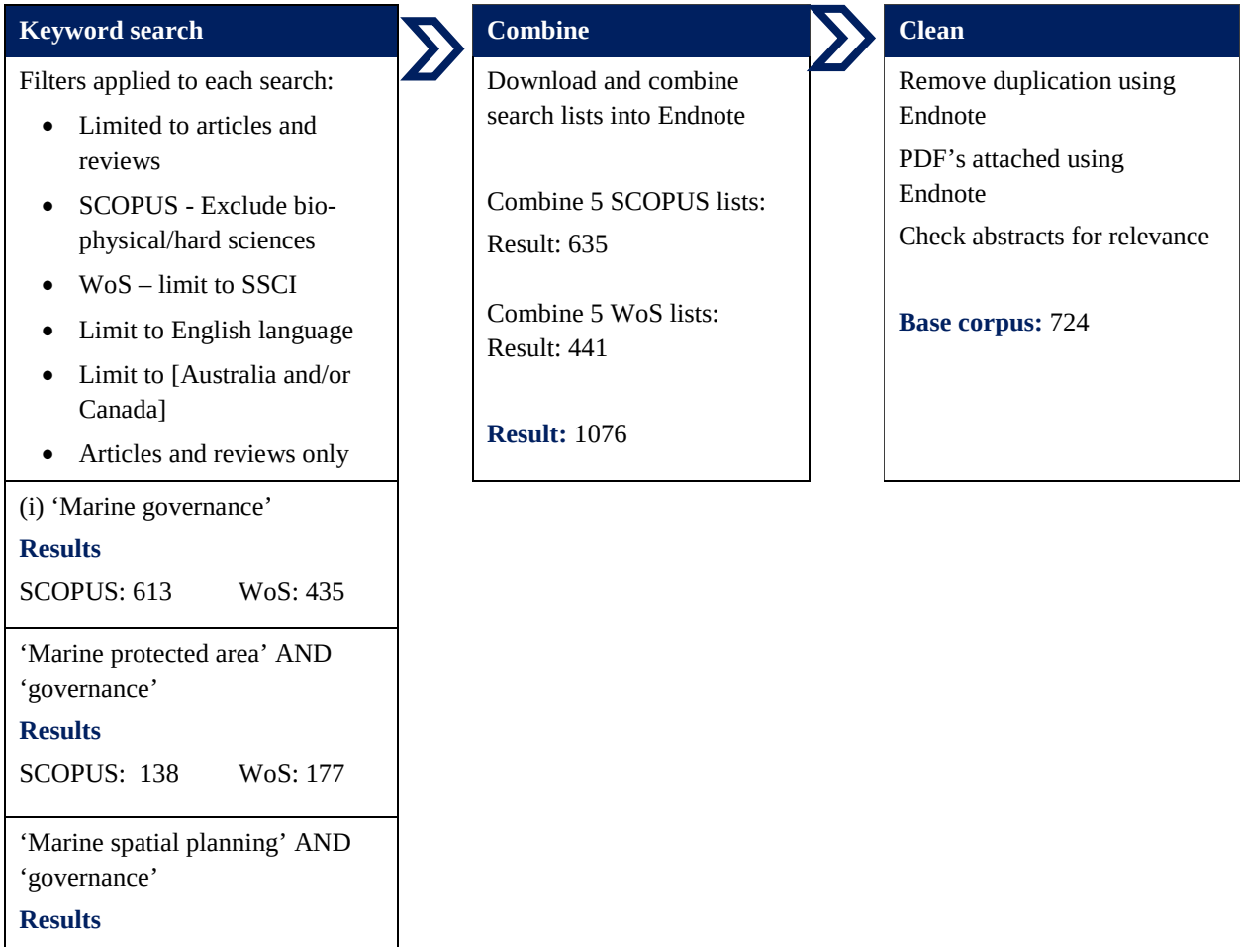
The result after combining and removing duplication was a raw corpus of 2829 journal articles.

After trialling the methods for analysing this raw corpus I found three problems: two related to the size of the corpus, and one related to research scope. Firstly, the corpus was too large to reliably 'clean' the data i.e. removing papers that were not relevant to governance (see the following section for details of this).

Secondly, the corpus was too large for the computer software, Vosviewer to analyse and produce useful results with respect to the deductive approach I used to capture my research interests (see description in Coding and Analysis in Chapter 4, pg. 78). Thirdly, the initial raw corpus included material addressing a wide range of governance contexts from authoritarian, limited democracy to 'development' contexts of emerging democracies and so-called failed states. This material was not pertinent to my focus on later modern constitutional democracies (see Introduction, pg. 23).

After consultation with Research Librarians about how to reliably limit the base corpus I added two search filters to align with my research scope (see Introduction, pg. 23, and Chapter 5, pg. 117) namely 'Australia' and 'Canada'. The result from this step was a base corpus of 724 journal articles, as laid out in Figure 8 below. The different search capabilities of each database (described above) explains the difference results for each list as seen in Figure 8.

Figure 8: Search steps for generating the data set



SCOPUS: 32 WoS: 22
‘Marine renewable energy’ AND ‘governance’ **Results** SCOPUS: 7 WoS: 6
‘Aquaculture AND ‘governance’ **Results** SCOPUS: 61 WoS: 60

As well as removing duplicates from the corpus, I conducted a manual review of titles and abstracts to remove any papers that did not deal directly with marine governance. This took three forms:

1. Papers that dealt with governance of other policy areas. For example, the following text from an abstract shows this paper dealt with disaster recovery governance not marine governance:

   “Post-disaster social recovery remains the least understood of the disaster phases despite increased risks of extreme events leading to disasters due to climate change. This paper contributes to advance this knowledge by focusing on the disaster recovery process of the Australian coastal town of Cardwell which was affected by category 4/5 Tropical Cyclone Yasi in 2011.”[23]

2. Papers that dealt with the marine environment, but within which governance did not figure in a substantial way. For example, the following text from the abstract shows this paper was concerned with the technical aspects of monitoring in the high seas context and provides recommendations about technology transfer, but mentions marine governance only as an element of the paper:

[23] Serrao-Neumann, S., Crick, F. & Low Choy, D. Nat Hazards (2018) 93: 1163. https://doi.org/10.1007/s11069-018-3345-5

"This paper identifies ways that automatic identification system (AIS) data can inform MCS on the high seas and thereby enhance conservation and management of biodiversity beyond national jurisdictions. AIS data can be used to (i) identify gaps in governance to underpin the importance of a holistic scope for the new agreement; (ii) monitor area-based management tools; and (iii) increase the capacity of countries and RFMOs to manage via the technology transfer."24

3. Papers that dealt with technical, biophysical aspects of the marine ecology or marine science but not marine governance. For example, the following text from an abstract shows the paper was concerned with technical science related to salmon mortality, and while make the case for this research in the policy context did not directly deal with governance processes:

"Scientific documentation that salmon lice impact the marine survival of salmon is robust. However, it is also evident that marine survival of salmon is strongly impacted by other factors, and that the effect of salmon lice is most likely an integral part of these other mortality factors. In this paper, our goal is to discuss and give advice on how managers and policy makers should handle this complexity, and to identify the greatest challenges in using scientific results to construct robust management rules."[25]

The result was corpus of 724 marine governance literature academic papers relevant to Australia and Canada.

Stage 2 Generating the purposive sample of influential papers

Following Garcia-Lillo et al 2017, and as described in Chapter 4 (pg. 76) I combined the results of an 'ancestor' and 'descendent' analysis of the papers within the base corpus to generate the purposive

[24] Dunn DC, Jablonicky C, Crespo GO, et al. 2018 Empowering high seas governance with satellite vessel tracking data. Fish Fish. 19, pp. 729–739.

[25] Vollset, K.V., Dohoo, I., Karlsen, O., Halttunen, E., Kvamme, B.O., Finstad, B., Wennevik, V., Diserud, O. H., Bateman, A., Friedland, K.D., Mahlum, S., Jørgensen, C., Qviller, L., Krkošek, M., Åtland, A., and Barlaup, B.T. 2018 Disentangling the role of sea lice on the marine survival of Atlantic salmon, ICES Journal of Marine Science, Volume 75, 1:1 pp. 50–60.

sample of influential papers. The details of how I conducted each of these analyses are described in this section.

Results from the descendant analysis

Citation data from corpus was used to identify which marine governance papers are likely to have highly influenced others in the set (and potentially beyond the set). Descendant analysis uses citation data to identify the influence of any paper on any other papers published after it (Van Eck and Waltman 2014).

A limitation of citation counts is that this information does not necessarily take publication date into account in considering impact. A significant paper published in 2016 might show 5 citations, for example, and be regarded by citing authors as making a significant contribution to the research but be weighted as less impactful than a 2006 paper showing 10 citations. To address this, I used an averaged figure to compare papers and even comparison of influence. The citation data was exported from the indexing databases for the base corpus and the average citations per year per paper were calculated. The average citations per year for each paper in the set were plotted (see Figures 9 and 10 below) and the median for each identified.

Figure 9: SCOPUS Citation analysis

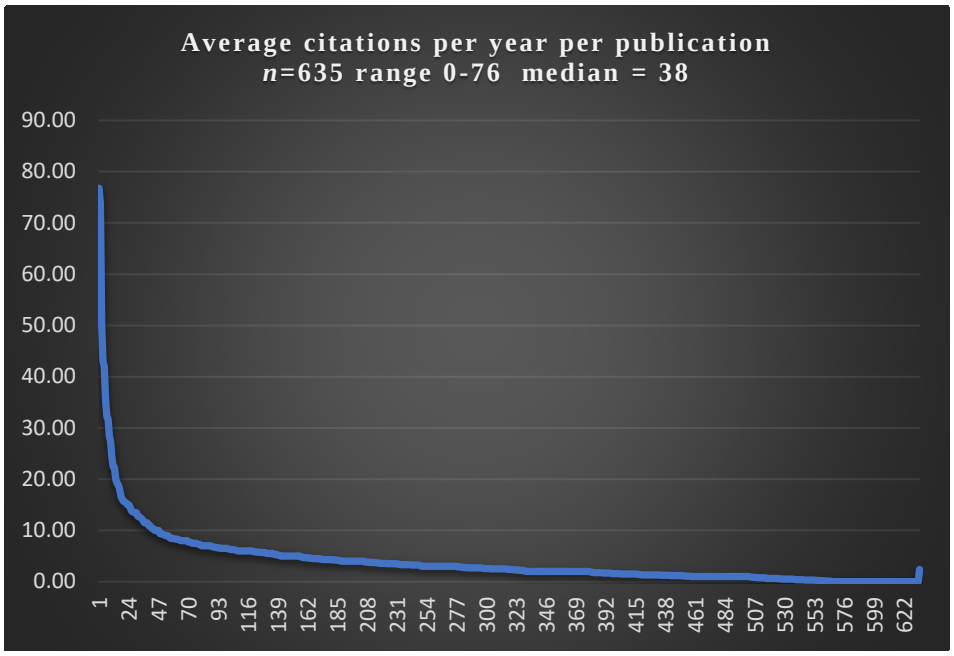
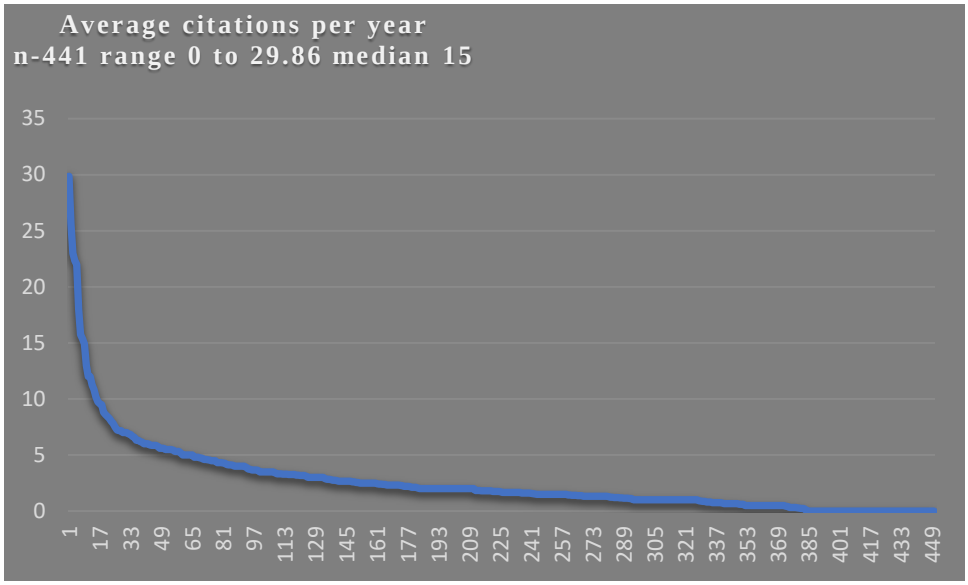


Figure 10: Web of Science citation analysis



Five papers from the SCOPUS set were above the median average citations per year of 38; and nine papers from the Web of Science set were above the median average citations per year of 15. These papers were compared, and duplications were removed with a final result of six papers as set out in Table 21.

Table 21: Descendent analysis - influencing papers from within the corpus

Authors	Title
Adger et al 2005	Social-ecological resilience to coastal disasters
Maes et al 2016	An indicator framework for assessing ecosystem services in support of the EU Biodiversity Strategy to 2020
Defeo et al 2009	Threats to sandy beach ecosystems: A review
Cinner et al 2016	Bright spots among the world's coral reefs
Hughes et al 2005	New paradigms for supporting the resilience of marine ecosystems

Results from the ancestor analysis

Ancestor analysis refers to research clusters that have exerted intellectual influence across a body of literature. The clusters are generated from co-citation data extracted from a body of literature using a

statistical visualisation software. In this case I used Vosviewer[26] software version 1.5.5 that has been designed to analyse co-citations statistics for a body of literature. Vosviewer software produces visual 'maps' of the resulting clusters of researchers or papers bound by conceptual commonality or links (Van Eck et al 2013). Here I encountered a limitation with the Vosviewer software, that is that the software at the time (version 1.5.5, in August and September 2018) unable to process large data sets in the format exported through the data base. This meant I was able to only use the Web of Science data for this ancestor analysis (*n* = 441). I discussed alternatives with Vosviewer designer Van Eck but this problem could not be resolved (*pers. comm.* Van Eck, August 2018*)*.

The results of the ancestor analysis are set out in Table 22 below.

Table 22: Highly co-cited marine governance papers

Paper details
Ostrom, E., 1990. Governing the commons. Cambridge university press.
Ostrom, E., 2009. A general framework for analyzing sustainability of social-ecological systems. Science, 325(5939), pp.419-422.
Gutiérrez, N.L., Hilborn, R. and Defeo, O., 2011. Leadership, social capital and incentives promote successful fisheries. Nature, 470(7334), p.386.
Folke, C., Hahn, T., Olsson, P. and Norberg, J., 2005. Adaptive governance of social-ecological systems. Annu. Rev. Environ. Resour., 30, pp.441-473.
Ostrom, E., 2007. A diagnostic approach for going beyond panaceas. Proceedings of the national Academy of sciences, 104(39), pp.15181-15187.
Cinner, J.E., McClanahan, T.R., MacNeil, M.A., Graham, N.A., Daw, T.M., Mukminin, A., Feary, D.A., Rabearisoa, A.L., Wamukota, A., Jiddawi, N. and Campbell, S.J., 2012. Comanagement of coral reef social-ecological systems. Proceedings of the National Academy of Sciences, 109(14), pp.5219-5222.
Dietz, T., Ostrom, E. and Stern, P.C., 2003. The struggle to govern the commons. science, 302(5652), pp.1907-1912.
Gelcich, S., Hughes, T.P., Olsson, P., Folke, C., Defeo, O., Fernández, M., Foale, S., Gunderson, L.H., Rodríguez-Sickert, C., Scheffer, M. and Steneck, R.S., 2010. Navigating transformations in governance of Chilean marine coastal resources. Proceedings of the National Academy of Sciences, 107(39), pp.16794-16799.
Ostrom, E., 2005. Understanding institutional diversity (Vol. 241). Princeton: Princeton University Press.
Berkes, F., 2009. Evolution of co-management: role of knowledge generation, bridging organizations and social learning. Journal of environmental management, 90(5), pp.1692-1702.

[26] http://www.vosviewer.com/

Crowder, L.B., Osherenko, G., Young, O.R., Airamé, S., Norse, E.A., Baron, N., Day, J.C., Douvere, F., Ehler, C.N., Halpern, B.S. and Langdon, S.J., 2006. Resolving mismatches in US ocean governance. SCIENCE-NEW YORK THEN WASHINGTON-, 313(5787), p.617.

Halpern, B.S., Walbridge, S., Selkoe, K.A., Kappel, C.V., Micheli, F., D'agrosa, C., Bruno, J.F., Casey, K.S., Ebert, C., Fox, H.E. and Fujita, R., 2008. A global map of human impact on marine ecosystems. Science, 319(5865), pp.948-952.

Jackson, J.B., Kirby, M.X., Berger, W.H., Bjorndal, K.A., Botsford, L.W., Bourque, B.J., Bradbury, R.H., Cooke, R., Erlandson, J., Estes, J.A. and Hughes, T.P., 2001. Historical overfishing and the recent collapse of coastal ecosystems. science, 293(5530), pp.629-637.

Christie, P., 2004. Marine protected areas as biological successes and social failures in Southeast Asia. In American Fisheries Society Symposium (Vol. 42, No. 42, pp. 155-164).

Stage 3: Combining the descendent and ancestor analyses

The results from both descendent and ancestor analyses were combined in an Excel spreadsheet and duplicates were removed. Each paper was reviewed again for relevance, that is, to ensure the content of the paper directly addressed governance (as per study design above) and seven papers were removed from the set:

- Cinner et al 2016 was removed as this paper is a statistical analysis and comparison of the biological performance of coral reef systems and does not address governance implications of the comparison;
- Crowder et al 2006 was removed as it deals with legislative fit rather than governance as a process
- Defeo et al 2008 was removed as it dealt with a review of sandy beach ecosystems
- Douvere 2008 was removed as it deals with the principle of marine spatial planning as a method rather than governance per se.
- Halpern et al 2008 was removed as it deals with impact description rather than governance
- Jackson et al 2001 was removed as it deals with primarily with ecosystem collapse
- Maes et al 2016 was removed as this paper deals with an indicator framework for ecosystem services and, although potentially useful as a governance tool, the paper does not directly deal with governance.

In addition, Ostrom 1990 was removed as it is a book rather than a journal article. The final list is set out in Table 23 below.

Table 23: Results of combining descendent and ancestor analyses

Author	Year	Title
Adger W.N. et al	2005	Social-ecological resilience to coastal disasters
Armitage, D.R. et al	2009	Adaptive co-management for social–ecological complexity.
Berkes, F.	2009	Evolution of co-management: role of knowledge generation, bridging organizations and social learning.
Christie, P.	2004	Marine protected areas as biological successes and social failures in Southeast Asia.
Cinner, J.E.	2012	Co-management of coral reef social-ecological systems
Dietz, T. et al	2003	The struggle to govern the commons
Folke, C. et al	2005	Adaptive governance of social-ecological systems.
Gelcich, S. et al	2010	Navigating transformations in governance of Chilean marine coastal resources.
Gutierrez, N.L.	2011	Leadership, social capital and incentives promote successful fisheries.
Hughes T.P. et al	2005	New paradigms for supporting the resilience of marine ecosystems
Jentoft, S.	2007	Limits of governability: Institutional implications for fisheries and coastal governance
Jentoft, S. et al	2007	Marine protected areas: a governance system analysis.
Ostrom, E. et al	2007	A diagnostic approach for going beyond panaceas.
Ostrom, E.	2009	A general framework for analyzing sustainability of social-ecological systems.

Limitations

The first limitation to this method is that the ancestor analysis was only able to be conducted using the Web of Science data set. The Web of Science set is still sufficiently large to indicate intellectual influence across marine governance theory and practice (relevant to Australia and Canada). It does mean however that the final purposive sample does potentially contain a bias toward descendent citations, i.e. it may not capture intellectual influence from outside the corpus as strongly as it reflects intellectual influence within the base corpus. Notwithstanding this, the Web of Science set is still large (*n* = 441) and so sufficient to indicate influence. To acknowledge this limitation, in the body of the study (Chapter 4) I refer to the papers in the purposive list as 'highly influential' to indicate that this is a limited though overall robust purposive sample.

Reference list

Denyer, D., and D. Tranfield. 2009. "Producing a Systematic Review." In The Sage Handbook of Organizational Research Methods, edited by D. Buchanan and A. Bryman, 671–689. London: Sage.

Ellegaard, O. and Wallin, J.A., 2015. The bibliometric analysis of scholarly production: How great is the impact?. Scientometrics, 105(3), pp.1809-1831.

García-Lillo, F., Úbeda-García, M. and Marco-Lajara, B.. "The intellectual structure of human resource management research: A bibliometric study of the International Journal of Human Resource Management, 2000–2012." 2017 The International Journal of Human Resource Management 28:13 pp.1786-1815.

Van Eck, N.J. and Waltman, L., 2014. Visualizing bibliometric networks. In *Measuring scholarly impact* (pp. 285-320). Springer, Cham.

Appendix 2: Codes used to organise the close reading of the purposive sample

In this step each paper was read separately to gain a coherent sense of the paper and understand the approach to participation. I used codes to in Table 24 to organise the analyses.

Table 24: Codes to guide the close reading of each paper in the purposive sample

Code:	Description / rules
Overarching focus of the paper	A summary of the paper abstract and the theoretical or conceptual orientation of the paper
The problem to be solved	Text that describes any gap in the research or problem from the applied context the paper seeks to address
The recommendations	A summary of the implications or proposed application of the findings.
Reason for participation	Text that describes why actor participation is required and what function the participation is held to serve, what problem or kind of problem the participation is held to address, or any other rationale for the participation
Methods of participation	Text that describes how participation should be conducted or facilitated including processes, activities that describe participation or proposed processes, activities or principles that would guide or deliver participation
Problems with participation	Text that describes any limits, challenges, barriers to implementing or conducting participation or any other reason that participation is difficult, complex or unachievable
Terms used for the range of actors	Any term, word or label used to describe which actors should or are involved in any process as participants.

Appendix 3: Summary results from the close reading of the purposive sample

In this Appendix I have laid out a summary of the close reading of each journal article in the purposive sample. For convenience I have organised these summaries using subheadings for the focus, problem of interest, recommendations (providing the broader context for the paper) and then also a summary of their individual approach to participation (reasons, problems, how and who). These latter four subheading also reflect the deductive codes used for thematically analysing conceptualisations of participation across the sample using NVIVO (see Appendix 4).

Adger et al 2005

Adger, W.Neil, Hughes, T., Folke, C., Carpenter, S. and Rockstrom, J. 2005 Social-Ecological Resilience to Coastal Disasters, Science, Vol.309, pp.1036-1039

Overarching focus of the paper

To address governance contexts and structures required to deal with disaster management. The proposition in this paper is that under ecosystem change unexpected shocks can be increasingly expected and that governance systems should reflect social-ecological properties to deal with disasters, and if they do will contribute to social-ecological system resilience. In particular they argue for a need to bring multiple levels of governance together to harness social capitals from across the levels of the social systems as the basis for regenerative capability – a social systems version of ecosystem regenerative capability and resilience.

The problem to be solved

To build social resilience and preparedness for extreme climatic events as an aspect of social-ecological systems resilience and adaptive capacity.

The recommendations

- Define resilience and disaster management at broader scales than just government or policy response and “actively managed and nurtured” (pg. 1039).
- Generate diverse sources of ecosystem knowledge and translate these into governance systems.

- Develop multi-level social networks as the basis for development social capital and institutional governance frameworks (legal, political and financial).
- Share management authority across multi-level social and governance networks.

Reason for participation

- To build and strengthen multi-level social networks and social capital as the basis for social system resilience and preparedness for extreme climatic events.

Methods of participation

- Collective action (unspecified) through responsive institutions
- Social network self-mobilisation promoted by forma legal authorities (government)
- Social learning and building social cohesion through unspecified institutional arrangements

Problems with participation

- None specified with participation methods
- Developing strong leadership and new norms within management authorities to generate the network governance forms.

Terms used for the range of actors

- Communities
- Civil society
- Private corporations
- Resource users
- Management authorities.

Armitage, D. et al 2009

Armitage, D.R., Plummer, R., Berkes, F., Arthur, R.I., Charles, A.T., Davidson-Hunt, I.J., Diduck, A.P., Doubleday, N.C., Johnson, D.S., Marschke, M. and McConney, P., 2009. Adaptive co-

management for social–ecological complexity. *Frontiers in Ecology and the Environment*, *7*(2), pp.95-102.

Overarching focus of the paper

To introduce features of and requirements for adaptive co-management approach to governing social-ecological systems (or social-ecological complexity).

The problem to be solved

Development of institutional arrangements through which trust can be built as the basis for addressing "multi-scale society-environment dilemmas" (pg. 95).

The recommendations

- Innovation in institutional arrangements that are built on social networks are necessary to address social-ecological complexity and change.
- Ten "conditions for success" (pg. 101) in implementing adaptive co-management subject to local conditions.
- Management experiments that share risk and enable social learning and locally relevant governance strategies are essential to developing governance arrangements under adaptive co-management.

Reason for participation

- The basis for generating social sources for adaptability to social-ecological changes and adaptive co-management
- Trust building, institutional innovation and social learning

Methods of participation

- Collaborative processes
- Group decision-making
- Shared learning and social learning (experiential and experimental)
- Knowledge co-generation
- Deliberative processes

Problems with participation

- Addressing conflict or competing interests
- Divided management institutions do not enable participatory approaches

Terms used for the range of actors

- Stakeholders
- First peoples /First nations
- Individuals
- Management institutions

Berkes 2009

Berkes, F., 2009. Evolution of co-management: role of knowledge generation, bridging organizations and social learning. *Journal of Environmental Management*, *90*(5), pp.1692-1702

Overarching focus of the paper

Berkes addresses specific institutional arrangements and processes that are held to enable the governance of complex resources by bringing together multiple agencies and actors.

The problem to be solved

- Enabling adaptive problem solving and governance at larger scales

The recommendations

- By introducing processes and institutional arrangements for social learning and knowledge co-generation, governance systems can transition from centralised to co-management and then to adaptive
- Experimentation in governance arrangements is necessary to develop flexible, multi-level governance systems

Reason for participation

- To bring together a range of relevant and necessary knoweldges (epistemologies) to address resource complexity
- To generate social learning as the means for governance and systemic development toward adaptation, and towards more appropriate governance actions

Methods of participation

- Knowledge sharing and co-generation
- Social learning
- Bridging organisations as institutional structures to support knowledge sharing and social learning

Problems with participation

- Grappling with the potentially very large numbers of organisations required in systemic participation

Terms used for the range of actors

- Organisations
- Stakeholder groups

Christie 2004

Christie, P. 2004 Marine Protected Areas as Biological Successes and Social Failures in Southeast Asia, American Fisheries Society Symposium, 42: 155-164

Overarching focus of the paper

This paper introduces the importance of social outcomes alongside biological outcomes for marine protected areas (MPA) as a management strategy. Christie's approach has a normative dimension to it i.e. justice and equity and ensuring all community members share the economic benefits derived from the marine resources, as well as instrumental goal of improving the effectiveness of resource management

policies and strategies. The paper is influenced by the empowerment position and methods of the development literature and the case study, Bunaken National Marine Park in Indonesia, indicates that Christie is strongly influenced by the development discipline.

The problem to be solved

Inadequate attention, in marine protected area policy, to the social conditions in which they are established and to the social impacts of the elements of the policy (e.g. no take). The problem to be solved is the effectiveness of MPA as a policy strategy.

The recommendations

The social context, which for Christie includes livelihood, equity and power imbalances, must be taken into account and addressed through a management policies like MPA.

Reason for participation

- Increase effectiveness of management policy (in this case MPA).

Methods of participation

- Test ecosystem models and science (social learning)
- In-person (face-to-face) communications (analytic deliberation, well-structured dialogue)
- Social monitoring

Problems with participation

- None specified

Range of actors

- Resource users i.e. fishers
- Policy actors (bureaucrats)
- Scientists
- Communities (mostly assumed to be dependent on marine resources for livelihood and so also stakeholders

Defeo et al 2009

Defeo, O., McLachlan, A., Schoeman, D.S., Schlacher, T.A., Dugan, J., Jones, A., Lastra, M. and Scapini, F., 2009. Threats to sandy beach ecosystems: a review. *Estuarine, Coastal and Shelf Science*, *81*(1), pp.1-12

Overarching focus of the paper

The paper presents an extensive collation of physical and ecological science on sandy beaches and review anthropogenic threats to sandy beach ecosystems.

The problem to be solved

Addressing a knowledge gap regarding sandy beach ecosystems as the basis for addressing anthropogenic threats to sandy beach ecosystems ("coastal squeeze" pg. 8).

The recommendations

- Addressing human threats to sandy beach ecosystems requires a paradigm shift to shared governance between formal legal management authorities and stakeholders

Reason for participation

- To effect behavior changes among people who live and work in sandy beach ecosystems and promote compliance with legislation

Methods of participation

- Involvement in planning and designing legislation for managing sandy beach systems and limiting human impacts

Problems with participation

- None specified

Terms used for the range of actors

- Stakeholders (unspecified)

Dietz et al 2003

Dietz, T., Ostrom, E. and Stern, P.C. 2003 The Struggle to Govern the Commons, Science Vol. 302, pp.1907-1912

Overarching focus of the paper

Starting from Ostrom's locally-based, community self-organising governance work, this paper makes the case for bringing civil society into the environmental governance frame, and draw attention to human impacts on resources, particularly economic forms (livelihood and market) and globalized human systems (market).

The problem to be solved

The gap between market and centralized government forms of governance. More particularly they identify that in complex interdependent human systems (particularly globalized market governance) the case for the delegation of authority, decision making, rule design or sanctions (as per Ostrom's earlier work) is not clear, and the solutions are yet to be developed.

The recommendations

Key findings are "conditions" in complex, globally interdependent human systems that would benefit from future research:

- Information: sufficient ecological science and the conversion into useable information for policy makers
- Conflict: they argue for approaches, strategies and institutions that can convert conflict into learning opportunities. They suggest participatory policy making and participatory science as most likely to achieve this.
- Compliance incentives and inducements: Noting that legal sanctions and monitoring is expensive and complex, they recommend a turn towards social processes
- Infrastructure for governance: greater understanding of the technological, physical and institutional infrastructures that support governance is required. For the authors this includes experience, experimentation, a diversity of values and social capital

- Change preparedness: change is regarded as the new reality, and understanding how all manner of change (knowledge, science, climate, ecosystem) requires institutional diversity

The key processes required according to this paper are analytic deliberation and institutional diversity. With respect to the latter, institutional structures should be dynamic i.e. new institutions, a variety of institutions and institutional redundancy should be encouraged rather than a push for institutional simplicity. They argue for a mix of governance types: market, government and civil society. The civil society components are built on social processes rather than legal rules.

Reason for participation

- Ensure compliance with regulation
- Lower the cost of compliance behaviours (for all actors)
- Convert conflict and difference into learning and change (about ecosystem dynamics and adapting behaviours accordingly)

Methods of participation

- Community based strategies as per Ostrom

Problems with participation

- None specified

Terms used for the range of actors

- Resource users i.e. fishers
- Policy actors (bureaucrats)
- Scientists
- Stakeholders (Interested publics, NGOs)

Folke 2005

Folke, C. 2005 Social-Ecological Resilience to Coastal Disasters, Science, Vol.309, pp.1036-1039

Overarching focus of the paper

This paper provides an examination of empirical cases of adaptation to abrupt ecosystem change and turbulence. In doing so, the authors consciously set out the foundations of the social aspects of the social-ecological system approach: that is the social processes that constitute how the world works (from within the SES paradigm), and so drive the imperative for multiple and diverse interconnected institutions of governance.

The problem to be solved

Social and ecological vulnerability, resilience and adaptative capacity are the core concerns of this paper, and so preparing social systems (societies) for abrupt, often unexpected, ecosystem changes, including the ecosystem services or resources derived by societies from the marine social-ecological systems becomes the problem to be solved.

The paper also introduces a “window of opportunity” proposition, which poses crisis events, turbulence or abrupt change as opportunities for driving institutional, social, cultural and behaviourial changes. The window of opportunity proposition is further developed and examined empirically in Gelcich et al 2010.

The recommendations

This paper expands the notion of building the adaptive capacity of people and social systems, in ways that mirror ecological systems adaptive capacity, i.e. by working with and expanding diversity, flexibility, and dynamism. They propose that social learning, that is learning across, among and within the formal and informal networks that comprise social systems, as the primary social process that should be institutionally and in practice facilitated. Building the social system around social learning, they argue, in turn builds the “social resources” (social capital, thick social ties, and trust) that will enable a society to not only adapt to new circumstances but also rebuild from negative abrupt change (vulnerability). This review established four conditions for adaptive governance of social-ecological systems:

- Learning to live with change and uncertainty (values and social memory)
- Combining different types of knowledge for learning (social learning and social memory, incorporating ecology science for new behaviours and change)

- Creating opportunity for self-organisation toward social-ecological resilience (action, commitment, new behaviours and values emerge when people drive it themselves)
- Nurturing sources of resilience for renewal and reorganization.

Reason for participation

- To identify and build the social resources of a social system to build resilience and adaptive capacity of the social system.

Methods of participation

- Social learning through group, networks and bridging organisations considering new information together
- Expanding social networks, both formal (institutional) and informal
- Self-organising.

Problems with participation (or existing governance)

- None specified

Terms used for the range of actors

- Any individual actors that impact upon or are dependent upon the marine ecosystem
- Leaders that emerge from anywhere across the social system

Gelcich

Gelcich, S., Hughes, T.P., Olsson, P., Folke, C., Defeo, O., Fernández, M., Foale, S., Gunderson, L.H., Rodríguez-Sickert, C., Scheffer, M. and Steneck, R.S., 2010. Navigating transformations in governance of Chilean marine coastal resources. *Proceedings of the National Academy of Sciences*, *107*(39), pp.16 794-16 799.

Overarching focus of the paper

Provides a case study of conditions and phases that can facilitate transformation to governance regimes that are better equipped to deal with multiple human negative impacts on marine social-ecological systems.

The problem to be solved

Existing and increasing human exploitation and uses of marine social-ecological systems is forcing greater declines and existing governance systems are not equipped to deal with the complex ways and reasons for exploitation.

The recommendations

- Shared recognition of the impacts and causes of overexploitation or resource change/crisis is a critical factor in governance transformation
- Governance transformation occurs when new knowledge is generated among networks and when new knowledge is incorporated into governance systems
- Leadership that connects new knowledge from social networks with management authorities is an enabling factor for governance transformation
- Taking advantage of points of crisis or unexpected significant change for driving governance change is a further factor in governance transformation

Reason for participation

- To generate new knowledges, ideas, practices and behaviours that can address human overuse and exploitation of marine resources and marine social-ecological systems.

Methods of participation

- Communication networks
- Shared research projects

Problems with participation (or existing governance)

- Requires shared recognition of a problem as basis for generating desire to address the problem

Terms used for the range of actors

- Scientists
- Fishers
- Management authorities

Gutierrez et al 2011

Gutiérrez, N.L., Hilborn, R. and Defeo, O., 2011. Leadership, social capital and incentives promote successful fisheries. *Nature*, *470*(7334), p. 386.

Overarching focus of the paper

Presentation of the results of an evaluation of 130 case studies of fisheries management strategies with a view to understanding enabling factors for effective fisheries.

The problem to be solved

Improving fisheries management to deal with fisheries overexploitation and the attendant risk to humans from fisheries failure.

The recommendations

- Strong community leadership in co-management arrangements is a key enabling factor
- Building social capital through co-management arrangements leads to more effective fisheries management and governance
- Co-management arrangements also need to be supported by incentives based management strategies for effective fisheries management
- Co-managed protection areas

Reason for participation

- Build collective ownership, responsibility and knowledge among fishers with respect to resource conditions and the implications for fishing practices
- Develop collective norms, trust and ongoing communication networks
- Increase compliance to regulations

Methods of participation

- Formal co-management arrangements
- Collective fishing rights (catch shares)
- Communication networks

Problems with participation

- Requires clear and legitimate community leadership founded on “collective interests not self-benefits” (pg. 388)

Terms used for the range of actors

- Fishers
- Resource users

Hughes et al 2005

Hughes, T., Bellwood, D.R., Folke, C., Steneck, R.S. and Wilson, J.W. 2005 New paradigms for supporting the resilience of marine ecosystems, Trends in Ecology and Evolution, 20:7, pp.380-386

Overarching focus of the paper

Another important paper at the height of the expansion of the social-ecological systems paradigm. The paper is firmly based on ecosystem-based approach and on the research the suggests marine ecosystems are not only complex and significantly impacted upon by human activities and governance, but are also at the basis of social wellbeing.

The problem to be solved

The driving concern of this paper is ecosystem regime change, with negative consequences for social wellbeing, as the likely outcome of the multiple effects of climate change, increasing exploitation (driven by market governance) and lack of non-market governance regimes that deal with the complexities of the social-ecological systems ‘reality’. The paper critiques the existing market-based governance of marine resources i.e. demand, supply and distribution via markets and establish biodiversity as a critical indicator for assessing effectiveness of management or governance regimes.

The recommendations

The paper introduces interdisciplinary sciences as a requirement to progress the insights of ecology sciences and social-ecological systems theory, and the paper concludes with a simple and clear set of four attributes they argue are essential and define social-ecological systems:

- embracing uncertainty and change
- building knowledge and understanding of resource and ecosystem dynamics
- management practices that measure interpret and respond to resource and ecosystem dynamics
- flexible institutions and social networks in multi-level governance.

Reason for participation

- Increase effectiveness of sciences to inform ecosystem management

Methods of participation

- Interdisciplinary research

Problems with participation

- None specified

Terms used for the range of actors

- Resource managers
- Scientists (marine ecologists, social scientists, economists)

Jentoft 2007

Jentoft, S. 2007 Limits of governability: Institutional implications for fisheries and coastal governance, Marine Policy, 31 pp. 360-370

Overarching focus of the paper

This paper is focused on the challenges of governance given SES paradigm. Jentoft here does not make the case for the SES paradigm, but rather assumes interconnectedness and interdependence, and vulnerability as conditions of SES. Jentoft specifically introduce power to explain and describe the

complexity and dynamism and so also explain the limits to ‘governability’ i.e. the extent to which an SES can be effectively governed.

The problem to be solved

Designing effective governance systems for complex, diverse, dynamic and potentially vulnerable systems-to-be-governed, including by working with power dynamics and the associated political processes as an important subset of social processes that characterise SES.

The recommendations

Participation of resource-user groups and other stakeholders (defined by power and interests) is an essential aspect of an effective governance system. An unspecified actor, presumably either governance scholars or policy actors, should analyse power and interest dynamics, including the discursive and constructivist ways in which power and interests are generated, and ensure power balancing in the design of governance systems.

Reason for participation

- To ensure SES governance is fair and just
- Because this is how the world is (i.e. already defined by multiple actions and perspectives through social processes)

Methods of participation

- Not specified in this paper

Problems with participation

- The political processes that are inherent to SES can result in power imbalances and so in turn reduce the governability of the SES “system-to-be-governed”.
- He mentioned issues of representation but does not address these.

Terms used for the range of actors

- Stakeholders

Jentoft et al 2007

Jentoft, S., van Son, T. and Bjorken, M. 2007 Marine Protected Areas: A Governance System Analysis, Human Ecology, 35:5, pp. 611-622

Overarching focus of the paper

Application of interactive governance theory to marine protected areas as a policy case study. The authors analyse MPA first as a governance system, then as a system-to-be governed, and in so doing, draw out the institutional implications for governance design under the SES conditions of diversity, dynamics, complexity. Berkes fourth condition, vulnerability/resilience is implied here also through the problem definition of ecosystem change.

The problem to be solved

Designing governance systems for SES (i.e. complexity, diversity and dynamic; also interdependency between ecological and social systems), and how to increase "governability" of SES i.e. the potential for an SES to be governed for sustainable use of resources.

The recommendations

Participation of user-groups and stakeholders (defined by power and interests) is designing, implementing rules and applying sanctions is a normative right, and instrumentally essential for ensuring equitable distribution of costs and benefits (of management system) and therefore increase the governability (and so in turn the protection of the ecosystem).

Reason for participation

- Increase governability
- A normative right to ensure equitable distribution of costs and benefits of management system

Methods of participation

- Problem structuring; interaction planning; rule and sanction design; implementation (behavior change) monitoring and applying social sanctions.

Problems with participation

- Subject to the flow of power, and without inclusion of less powerful actors with a stake or dependency on the ecosystem can lead to non-legitimate or unfair management regime, which will, in turn, reduce the governability of the "system-to-be governed" (social, ecological or social-ecological)

Terms used for the range of actors

- Resource user-groups
- Stakeholders (unspecified but defined by reference to power and interest analysis of policy actors)

Ostrom 2007

Ostrom, E. 2007 A diagnostic approach to for going beyond panaceas, PNAS, 104:39, pp. 15181-15187

Overarching focus of the paper

In this paper, Ostrom provides a practical extension of the commons governance research agenda by reviewing the empirical research and synthesising what is known into a research framework to guide future, and improved, governance research and design. Ostrom's term for this is the diagnostic approach as suits the dynamic, complex and diverse characteristics of SES. In this paper Ostrom also expands the concept of nested variables dynamics to address the problem of multiple scales that characterize most SES.

The problem to be solved

Improving the nuance and systematization of research into governance of SES in order to improve actual governance of SES: *"to recognize which combination of variables tends to lead to relatively sustainable and productive use of particular resource systems operating at specific spatial and temporal scales and which combination tends to lead to resource collapses and high costs for humanity."* (pg. 15181).

Ostrom also raises the problem of how to govern SES when the ideal conditions (social cohesion, relationships and social capital) are absent – this, she argues, is far more likely than the ideal conditions of earlier commons research.

The recommendations

The framework of variable influencing governance effectiveness and design ought to be used by policy and research actors to tailor governance institutions and processes to the specific conditions of each complex, dynamic, and diverse SES. The diagnostic approach is therefore an iterative approach to design and research that focuses on the social and ecological processes and resources that characterize each situation and furthermore avoids the trap of applying a blue-print approach (or panacea) to dealing with SES governance.

Reason for participation

- Increase social resources (trust, relationships shared norms, commitment) that will increase the effectiveness of SES management and governance

Methods of participation

- Not specified as a “blue-print” in this paper, but rather Ostrom provides a comprehensive table of variables for analysis that will assist in identifying which forms of participation and institutional structures will enable effective governance of specific SES.

Problems with participation (or existing governance)

- Ostrom’s primary concern is the negative consequences of applying a ‘simple’ set of rules about participation (based on the social resources/commons research) to complex, diverse and often multi-scalar SES.

Terms used for the range of actors

- Individuals

Ostrom 2009

Ostrom, E., 2009. A general framework for analyzing sustainability of social-ecological systems. *Science*, *325*(5939), pp.419-422.

Overarching focus of the paper

Provides a framework for organising and bringing together the range of social-ecological systems sciences and research on the sustainability of ecosystems.

The problem to be solved

The diversity of social-ecological systems research including disciplinary diversity and the wide range of angles and questions addressed with respect to social-ecological systems has prohibited effective synthesis and the generation of clear directions and actions for addressing loss and collapse of ecosystems globally.

The recommendations

- Provides a multi-level and nested framework for analysing research outcomes that reflects social-ecological systems complexity (comprising nested sub-systems nested multiple variables)
- Institutional arrangements generated from using the framework must take into account social variables as well as ecological variables and also take into account the links between social and ecological variables

Reason for participation

- Connecting social actors results in stronger institutional arrangements focused on ecological sustainability
- Building shared norms and behaviours is a basis for effective resource governance for sustainability

Methods of participation

- Collective choice rules

- Otherwise not specified as this is not the purpose of the framework, rather Ostrom makes the point that forms of participation (institutional arrangements) must reflect the combination of variables relevant for the social-ecological system under analysis

Problems with participation

- Group size will affect costs of participation but must be analysed in the context of sustainability outcomes

Terms used for the range of actors

- Users

Appendix 4: Codebook for the deductive analysis of the purposive sample

In this step I coded the body text of each paper from the purposive sample in NVIVO for MAC 10, and using the codes in Table 25.

Table 25: Codebook for deductive analysis of the purposive sample

Code	Description/rule Text that describes or explains…
WHY	…reasons for participation in marine governance
WHO	…which actors are regarded as preferred, recommended or observed participants for marine governance This text may directly describe the actors and define the actor groups, or it may simple refer to actors.
HOW	…processes, activities or methods by which actors are preferred, recommended or observed to have participated in marine governance
Problem to be solved by participation	…any gap in the research, any problem or any opportunity from the applied context the paper or research seeks to address
Limitations to participation	…any limits, challenges, barriers to implementing or conducting participation or any other reason that participation was described by the authors as difficult, complex, unachievable or not successful in delivering the desired benefits, objectives, goals or other expected positive result
Benefits from participation	…any successes, benefits or evidence that participation has been instrumental in meeting goals or objectives or delivering any other outcome or output that is described as positive by the authors

Appendix 5: Explanation of my previous contact with the West Coast Community Aquaculture Forum

In 2012 I was contracted by the salmonid aquaculture association to examine the social and economic impacts expected by residents from the proposed expansion of salmon farming in Macquarie Harbour as part of the environmental impact assessment for the proposed expansion. To do this, I generated a list of 'stakeholders' i.e. people who were active in the local community and reflected the interests or values recognised in the Environmental Impact Statement (Tassal et al 2011). I then facilitated a set of community meetings and engagement events in 2012 and 2013 that enabled people in the Strahan community to voice their interests and concerns about the proposed expansion. On the back of this engagement and in the context of industry members exploring greater engagement with local communities, I was contracted again by the industry association to establish an ongoing forum with 'the community'. People from the initial stakeholder list were invited to attend a community meeting to consider the idea of an ongoing forum (Minutes, February 2014), followed by a second meeting in which a purpose, structure and processes, or Terms of Reference (TOR, 2014) were generated (Minutes April 2014). My role in these two meetings was to organise, facilitate and record meeting notes and the draft TOR. After these meetings (February and April 2014), I withdrew from the process. I had no further engagement with the Forum until I commenced this research in August 2018.

Appendix 6: Copy of the research information sheet and consent form

Information Sheet for Interviewees

Project Title: Understanding participant perspectives on political representation

Introduction

This research project is designed to examine the limits and constraints of stakeholder participation and political representation in integrated marine governance.

The project team is Ms Maree Fudge, Prof Marcus Haward, Dr Emily, Ogier, Dr Karen Alexander, Dr Peat Leith and Assoc Prof Catriona MacLeod from the University of Tasmania.

This research is in partial fulfilment of Ms Fudge's PhD. Understanding the experiences of 'real world' participants in integrated marine governance processes is an essential part of Maree's research.

Why have I been invited to participate in this research?

You have been identified as a person who has been involved integrated coastal governance as a researcher or policy maker.

As such you would be a valuable contributor to understanding the limits and constraints of participatory governance processes and political representation.

What does participation involve?

Your participation would involve two parts:

1. a semi-structured interview with Maree Fudge, the researcher, in 2018 and
2. the option to participate in a review workshop in 2019 to consider the initial research findings.

The interview will take approximately 30-60 minutes of your time, and will be used as a data to help me understand the experience of governance participation.

The interview will cover the following areas:

1. Extent, forms and reasons for your involvement, non-involvement or interest in integrated coastal governance
2. Challenges, barriers, concerns and opportunities for community and stakeholder participation in planning and decision-making processes relevant to integrated coastal governance.

Are there any possible benefits or risks from participating?

This research is focussed on understanding the limits and constraints of participatory governance processes and representation.

This research will be used to improve the processes and activities within integrated marine governance, and for the purposes of Maree's doctoral dissertation.

There are no specific risks to participants in this study. Data will be de-identified and will attribute information to individual participants. There is a small risk that it may be possible to identify who has contributed the information on the basis of roles. In any use of these data, participants will not be identified unless permission to do so is obtained from the participant.

Some questions about experiences of difficulties with representative and participative practices may contain information that is sensitive, and these data will remain de-identified (never attached to the participant details) and used in such a way as to ensure anonymity.

You will have the opportunity to and review a copy of the transcript of your interview, which will be emailed to you so you can make any corrections.

All participants involved in this research process are free to withdraw at any time until 30 March 2019.

Ethics approval

The University of Tasmania Social Sciences Human Research Ethics Committee (HREC) has approved this study. If you have concerns or complaints about the conduct of this study, you should contact the Executive Officer of the HREC (Tasmania) Network on +61 3 6226 7479 or email human.ethics@utas.edu.au.

You will need to quote the project number: H0016572

Contact

If you have any queries, I encourage you to contact me, Maree Fudge, via email, skype or phone:

Email: maree.fudge@utas.edu.au
Skype: mareefudge
Email: Marcus.Haward@utas.edu.au
Phone: +61 3 6226 233

Thank you for taking the time to consider participating in this study.

If you wish to participate, please sign the attached consent form.

CONSENT FORM

Understanding participant perspectives on political representation

1. I have read and understood the Information Sheet provided to me regarding the research project and the purposes of the interview.
2. Any questions that I have about my participation in the research have been answered to my satisfaction.
3. I understand that the interview will last between 30 and 60 minutes on the subject political representation and community and stakeholder participation in coastal governance.
4. I understand that the interview will be recorded and transcribed.
5. I understand that all research data will be securely stored on the University of Tasmania (Australia) premises for at least five years, and will be destroyed when no longer required.
6. The nature and possible effects of my participation in this project have been explained to me.
7. I understand that participation involves no foreseeable risks.
8. I understand that the researchers will maintain confidentiality of my identity (unless indicated otherwise below) and that any information I supply to the researcher will be used for the purposes of the research.
9. I understand that my answers to some questions about my perspectives on difficulties associated with stakeholder representation will remain de-identified, even if I agree that I can be identified in other parts of the research.
10. I understand that although the information I supply to the researcher will be de-identified before it is used in research publications, there remains a slight risk that it may be possible to identify who has contributed the information.
11. I agree that research data gathered from me for the study may be published provided that either I cannot be identified as a participant or I agree to be identified.

I agree that I can be identified Yes ☐

No ☐

12. I agree to participate in this investigation and understand that I may withdraw at any time without any effect until 1 February 2019, and if I so wish, may request that any data I have supplied to date be withdrawn prior to 1 February 2019 from the research.

Name of Participant:

Signature: Date:

Thank you. Please email this signed consent form to maree.fudge@utas.edu.au

Statement by Investigator

☐ The participant has received the Information Sheet where my details have been provided so participants have the opportunity to contact me prior to consenting to participate in this project.

Name of investigator

Signature of investigator Date